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ENVIRONMENTAL ASSESSMENT BOARD



ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARINGS

VOLUME: 58

DATE: Monday, September 16, 1991

BEFORE:

HON. MR. JUSTICE E. SAUNDERS	Chairman
DR. G. CONNELL	Member
MS. G. PATTERSON	Member

EARR
ASSOCIATES &
REPORTING INC.

(416) 482-3277

2300 Yonge St. Suite 709 Toronto, Canada M4P 1E4

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ENVIRONMENTAL ASSESSMENT BOARD
ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARING

IN THE MATTER OF the Environmental Assessment Act,
R.S.O. 1980, c. 140, as amended, and Regulations
thereunder;

AND IN THE MATTER OF an undertaking by Ontario Hydro
consisting of a program in respect of activities
associated with meeting future electricity
requirements in Ontario.

Held on the 5th Floor, 2200
Yonge Street, Toronto, Ontario,
on Monday, the 16th day of September,
1991, commencing at 10:00 a.m.

VOLUME 58

B E F O R E :

THE HON. MR. JUSTICE E. SAUNDERS	Chairman
DR. G. CONNELL	Member
MS. G. PATTERSON	Member

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1 ---Upon commencing 10:05 a.m.

2 THE REGISTRAR: Please come to order.

3 This hearing is now in session. Please be seated.

4 THE CHAIRMAN: The scoping session for
5 Panel 5 has been completed, Mr. Campbell?

6 MR. B. CAMPBELL: I have the sense, Mr.
7 Chairman, that there may be one or two modest issues
8 that intervenors wish to raise with the panel.

9 I think in terms of the statement of
10 proposed issues, that is certainly not the focus of the
11 concerns that people wish to raise.

12 I can advise the Board that Mr. Harry
13 Poch representing the City of Toronto is unable to be
14 here today, he became a father over the weekend. I
15 think there were some minor matters that he and I
16 needed to sort out, and I am confident that we can do
17 so, or if we can't, that it will not take much of the
18 Board's time. I am fairly confident that we can sort
19 them out and I was asked by representative of his firm
20 to speak to that matter this morning.

21 Second, we have also been contacted this
22 morning by Mr. Klippenstein, and again he is not able
23 to be here this morning but doesn't expect problems
24 with the statement of proposed issues and he expects to
25 speak to me on the matter within the next few days.

1 Again, I don't anticipate any difficulties and I don't
2 think unless you hear from us again, I think for the
3 moment, it can be left to be sorted out between
4 counsel. If there are problems we will, of course, be
5 back.

6 I am not quite sure how to proceed beyond
7 that point. The Board will have received this morning,
8 as I just did, a letter from Mr. Shepherd that raises
9 some concerns.

10 THE CHAIRMAN: I haven't seen it.

11 MR. B. CAMPBELL: In any event, rather
12 than my trying to characterize the nature of the
13 concerns, it is perhaps best that they be raised with
14 you directly and then I could respond to them.

15 THE CHAIRMAN: Mr. Starkman?

16 MR. STARKMAN: Thank you, Mr. Chairman.
17 I guess Mr. Shepherd and I want to talk to a similar
18 issue and I wanted to precede him with his concurrence.

19 THE CHAIRMAN: You want to precede him
20 with his concurrence, is what you said?

21 MR. STARKMAN: Yes.

22 If you don't have a copy, I wrote to Mr.
23 Campbell on Friday--

24 THE CHAIRMAN: Perhaps we should have
25 that.

1 MR. STARKMAN: --and sent a copy to Ms.
2 Morrison.

3 THE CHAIRMAN: Do we have that?
4 It looks very short.

5 MR. STARKMAN: I can just read in the one
6 or two sentences.

7 THE CHAIRMAN: Yes. All right.

8 MR. STARKMAN: On Friday I wrote to Mr.
9 Campbell and said that we just, on that day, received a
10 copy of Mr. Eliesen's speech to the IPPSO conference.
11 I don't know if the panel has had a chance to see that.

12 THE CHAIRMAN: No, I haven't seen that
13 either.

14 MR. STARKMAN: I don't think we have to
15 read it in its entirety. I just would say that Mr.
16 Eliesen, I guess, spoke to the IPPSO conference on
17 Wednesday and at the conference he announced an
18 increase in non-utility generation, or NUG, in the NUG
19 plan from what had been 2,100 megawatts in 2000 to
20 3,100 megawatts in the year 2000. That was a 1000
21 megawatt increase.

22 When I got the speech I wrote to Mr.
23 Campbell and I asked him that inasmuch as this was a
24 considerably different number than was in the plan,
25 could he please tell us when the analysis was completed

1 for the derivation of the 3,100 megawatts, had the
2 analysis been filed with the Board and if not, did
3 Hydro anticipate filing any further material in support
4 of the target with the Board.

5 I guess Mr. Campbell can speak to it, but
6 from our discussions this morning I gather that they
7 don't intend to file any further information prior to
8 Panel 5 giving its testimony, or giving its evidence.

9 Our concern is really of this nature,
10 that this is a hearing predominantly or fundamentally
11 into planning, Hydro's planning processes, the
12 methodologies that they use, how they go about planning
13 to meet electricity needs of people in Ontario.

14 Now, maybe just by coincidence but
15 several weeks prior to the evidence being given on the
16 non-utility generation plan, Hydro's chair stands up
17 and announces that the target or the plan is increased
18 by 50 per cent or increased by 1000 megawatts. This is
19 a significant number. We would like to know what type
20 of planning is this, what type of analysis went into
21 this. Have they changed their methodology? What has
22 changed between the fall of 1990 when they put out the
23 2,100 megawatts and September of 1991? When did the
24 change take place?

25 If it is now, 3,100 megawatts, why isn't

1 it 4,100 or 5,100? How does it work?

2 We think we are entitled to this
3 information forthwith.

4 Now, I know that Hydro is going to say,
5 the panel will explain it to you, you can ask the panel
6 about that. Surely, that's not a satisfactory answer.

7 They put out reams of information about
8 the non-utility generation plan. They have been
9 answering questions as recently as this summer, July
10 and August, in the interrogatory process based on 2,100
11 megawatts. You ask questions, they come back and
12 explain how the 2,100 makes sense, why it is, what it
13 is, and so on. And now we find out they have got
14 another number, 3,100.

15 So, we would like to know, as I asked in
16 the letter, when was the 3,100 set, what analysis forms
17 the basis of it and we would like to get that analysis
18 prior to the commencement of Panel 5 or forthwith, and
19 we think it goes to the whole question of the planning
20 methodology.

21 So, that's the request and that was the
22 issue that came up in the course of scoping
23 discussions. The other matters are fine.

24 THE CHAIRMAN: Okay. Mr. Shepherd,
25 should I read your letter first?

1 MR. SHEPHERD: Please, go ahead.

2 Mr. Chairman, at Ms. Morrison's request,
3 I wonder if it would be appropriate to make that letter
4 an exhibit so we can refer to it.

5 THE CHAIRMAN: All right. Next exhibit
6 number?

7 THE REGISTRAR: That will be No. 295, Mr.
8 Chairman.

9 THE CHAIRMAN: Thank you.

10 ---EXHIBIT NO. 295: Copy of faxed letter from Shepherd
11 & Associates dated September 15, 1991, to
Mr. B. Campbell, Re Panel 5 matters.

12 MR. SHEPHERD: Mr. Chairman, I will be
13 brief.

14 My concerns in this regard are perhaps
15 more mundane than Mr. Starkman's. I am concerned that
16 in Panel 5 I have accepted the responsibility to do the
17 major portion of the cross-examination, including
18 virtually all of the technical issues, and to go first.

19 In light of a number of comments we
20 received on our Panel 3 cross, we also hope to make it
21 shorter, to the tune of perhaps four days rather than
22 eight. To do that and to deal with questions like how
23 did you arrive at the cogeneration number or the small
24 Hydro number, and to delve into those questions in any
25 detail, there are at least two basic pieces of

1 information we need: One is what is the number. We
2 can't obviously ask them questions about the small
3 Hydro number if they don't tell us what it is until the
4 day before we have to cross-examine on it. And
5 secondly, how did you get the number, the methodology
6 used?

7 Now, we know from the 1990 NUG plan how
8 they got those numbers and what they are. But the 1990
9 NUG plan changed methodologies and numbers from '89. I
10 guess I am quite concerned that we will have the same
11 thing in 1991.

12 THE CHAIRMAN: Just so I have it in
13 perspective, the DSP was 2,100; is that right?

14 MR. SHEPHERD: The DSP was 1,600 which is
15 the 1989 NUG plan.

16 THE CHAIRMAN: I see. And it went up to
17 2,100 in 1990, all right.

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1 [10:15 a.m.] MR. SHEPHERD: That is right. But you
2 will recall, I think, that the small Hydro number went
3 down and the cogen number went up when they moved from
4 1,600 to 2,100 and that is a significant policy impact
5 for us in terms of our analysis of their projections
6 and their programs.

7 My concern is that we will be faced with
8 a situation in which we won't be able to do an
9 efficient cross-examination. Sure, we will be able to
10 get at everything eventually. If we get the
11 information in the direct evidence, we will just have
12 to wander through our questions until we bump into the
13 right answers, but that is not very efficient and it is
14 certainly a waste of our preparation time, our experts'
15 preparation time, all of which, primarily all of which
16 is coming out of the public purse.

17 Now, if I thought this was information
18 that Hydro simply didn't have, that would be a
19 different matter. I would say, okay, if you don't have
20 it, there is nothing we can do about it. But
21 presumably, Mr. Eliesen didn't announce a 3,100
22 megawatt figure without his people telling him we have
23 the back-up for that. You are not going to announce
24 the figure and find that we cannot make it work in the
25 NUG plan; therefore, it would seem to me that if they

1 have the information and it is necessary for
2 cross-examination, it should be delivered forthwith.

3 Now, the one other question I have - and
4 this is one that I am more concerned with perhaps than
5 Mr. Starkman - is the 48 hours of the IPPSO conference
6 was peppered with Hydro's spokespeople saying
7 transmission is going to be a big problem for
8 non-utility generation in the future. It is in Mr.
9 Eliesen's speech and it is in several other speeches by
10 other Hydro employees.

11 Again, we have no details. All we know
12 is, it is going to be a problem. Again, that is a
13 critical technical issue that we have to deal with in
14 Panel 5 and I suspect that Mr. Campbell is not going to
15 say you can come back and ask Panel 5. Bring Panel 5
16 back in October or November when that information is
17 available.

18 Therefore, since obviously they know that
19 they have some transmission constraints, we would like
20 to know what they are, too, so we are all working with
21 the same information.

22 THE CHAIRMAN: I am not as familiar as I
23 should be with the NUG plan as presently before this.
24 What, if anything, does it say about transmission
25 constraints in that?

1 MR. SHEPHERD: Essentially, the 1990 NUG
2 plan says essentially nothing about transmission
3 constraints. Those are my submissions.

4 THE CHAIRMAN: Is there anyone else who
5 wishes to make submissions before I ask Mr. Campbell to
6 make submissions?

7 MR. MORAN: Thank you, Mr. Chairman.
8 The NUG issue is one of great importance to the
9 government. A large part of government energy policy
10 is based on NUGS. I do not have instructions at this
11 point to deal with these issues. They have risen very
12 quickly and I would like to reserve the right to make
13 some submissions tomorrow. I am meeting with people
14 this afternoon.

15 THE CHAIRMAN: I think we are going to
16 have to deal with this one this morning, Mr. Moran, so
17 I don't think we are going to put it off until
18 tomorrow.

19 MR. MORAN: All right. But the only
20 problem I have at this point is getting instructions to
21 take a position at this point. I may be able to get
22 something by this afternoon. I do have a scheduled
23 meeting right now at 2:30.

24 THE CHAIRMAN: You wouldn't expect your
25 positions to be any more than what has already been put

1 forward by the Coalition and Mr. Shepherd?

2 MR. MORAN: I really couldn't say at this
3 point, Mr. Chairman.

4 THE CHAIRMAN: Well, we will have to
5 leave you in the same category as Mr. Poch and Mr.
6 Klippenstein, that you deal with Mr. Campbell if you
7 have a problem. I think that is the only we can deal
8 with that.

9 THE CHAIRMAN: Mr. Watson?

10 MR. WATSON: Mr. Chairman, I echo the
11 sentiments of Mr. Moran. This issue arose this morning
12 when we arrived here at scoping. None of us have had
13 any notice of this. We were completely unaware of this
14 and --

15 THE CHAIRMAN: Well, you were aware of
16 Mr. Eliesen's speech, I take it.

17 MR. WATSON: We were aware of that, but
18 we were certainly were not aware that Mr. Shepherd or
19 Mr. Starkman would be bringing their motion.

20 As with Mr. Moran, I have no instructions
21 on this issue.

22 THE CHAIRMAN: We will have to deal with
23 you the same as we deal with Mr. Moran.

24 MR. WATSON: Thank you.

25 THE CHAIRMAN: Unless, Mr. Campbell, you

1 want to defer this, but we are running into time
2 constraints, aren't we?

3 MR. B. CAMPBELL: By "time constraints",
4 you mean to the starting of Panel 5?

5 THE CHAIRMAN: Yes.

6 MR. B. CAMPBELL: Yes, we are. I think
7 it is important for me to record the fact that --

8 THE CHAIRMAN: Before we get into merits,
9 I want to make sure there is nobody else who wants to
10 make submissions. Is there anyone else? (No response)

11 Excuse me, Mr. Campbell. You can go
12 ahead then.

13 MR. B. CAMPBELL: Mr. Chairman, I just
14 want to be clear that we are in a situation where
15 essentially what has happening between the fall of 1990
16 and now is that the NUG development in the province has
17 progressed with somewhat spectacular success, and as is
18 pointed out in Mr. Eliesen's speech, and perhaps it
19 having been referred to so often, we should give it the
20 next exhibit number. I have--

21 THE CHAIRMAN: We have it? I have not
22 seen it.

23 MR. B. CAMPBELL: --only one marked-up
24 copy here. I do not intend to deal with it except
25 generally as my friend, but it is a speech called New

1 Opportunities in A Changing World given at the recent
2 NUG conference and it is dated September 11th, 1991,
3 and if I could reserve an exhibit number for that, I
4 can get some copies.

5 THE REGISTRAR: Number 296, Mr. Chairman.

6 THE CHAIRMAN: 296.

7 ---EXHIBIT NO. 296: Speech by Mr. Eliesen, entitled
8 New Opportunities in A Changing World,
dated September 11th, 1991.

9 MR. B. CAMPBELL: There are a couple of
10 things I want to say by way of background.

11 First of all, as is pointed out in the
12 speech, by the end of this year, what Mr. Eliesen
13 indicated was that Hydro expects to have finalized
14 arrangements with at least 10 additional NUG suppliers
15 for a total additional committed non-utility generation
16 capacity of about \$1,200 megawatts.

17 I can advise the Board that normally this
18 kind of figure is not announced until there are signed
19 contracts or other steps have been taken which make it
20 clear that this project is well and truly committed.

21 In this case, that general practice that
22 has been followed by Hydro in conducting its NUG
23 business was deviated from for two reasons; first of
24 all, Mr. Eliesen had been asked to speak to the
25 conference about what the future looked like, and

1 secondly, of course, Panel 5 was looming on the
2 horizon.

3 I will tell you that these are not
4 arrangements that have all been in the bag for any
5 length of time, whatsoever. As I say, the arrangements
6 are not yet all finalized. There have been important
7 segments of this in which, until as late as the latter
8 half of August, it was felt that negotiations were
9 proceeding satisfactorily, but that some of the main
10 issues that are sort of the first indication that a
11 firm deal can be struck, that point was not reached
12 until late August.

13 At that point, given the kinds of totals
14 that all of this added up to, Hydro's Senior Management
15 took a look at the 2,100 megawatts by 2000 figure that
16 was in the 1990 NUG plan and realized, of course, that
17 together with the state of the additional negotiations
18 and this figure of about another 1,200 megawatts of
19 purchases coming along, that when that was added to the
20 already committed in-service figure of about 700
21 megawatts, it was very close to that 2,100 megawatt
22 figure already in this year, never mind 2000.

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...

1 [10:25 a.m.] And the question arose as to what would
2 constitute a new expectation for the year 2000. Some
3 work has been done on that but that work is not
4 complete. The number is a target in the non-utility
5 generation forecast which normally comes out in the
6 fall and will again come out in the fall as expected.

7 That planning cycle is gone through each
8 year. It is going to be very difficult to meet it this
9 year because the same people that do it have been
10 answering interrogatories all summer and are appearing
11 on this panel. So that work is ongoing.

12 We do expect that the next iteration of
13 the non-utility generation plan in the planning cycle
14 would be available at the end of October. I can tell
15 you that I am advised, having received Mr. Shepherd's
16 letter this morning, that when he indicates that his
17 information is that a draft or that the plan is about
18 to go to the printers, that that is quite incorrect.
19 There are in fact portions of it, I am advised as late
20 as this morning, after receiving Mr. Shepherd's letter,
21 that are not written yet. And so I want to be clear
22 about that.

23 So that, yes, there is information
24 becoming available that is new and additional
25 information. It is my submission that none of this

1 affects the underlying principles that are involved in
2 planning for NUG development and the issues that have
3 been raised with respect to planning for NUG
4 development.

5 My friends raises the concern about
6 transmission. Yes, it is correct that they are
7 developing transmission constraints given the
8 quantities of non-utility generation that are going
9 onto the books.

10 If it is of any assistance to my friend,
11 the details of transmission matters are being dealt
12 with by Panel 7; and apart from identifying the fact
13 that transmission limitations do exist on this system,
14 the actual evidence and expertise on the nature and
15 location and extent of those transmission limitations
16 will be dealt with by Panel 7, which is the
17 transmission panel. The transmission system planner
18 will be appearing on that panel.

19 In any event, as I say, my submission is
20 yes, there is additional information coming along. We
21 do take the view and submit to you that this is a
22 long-term planning hearing. We are not talking about
23 fundamental changes in methodology. We are talking
24 about a program that has been substantially successful
25 and as a result there has had to be some initial

1 rethinking of the kinds of objectives Hydro should be
2 setting for itself.

3 But the problem with the timing of the
4 1991 NUG plan release has been one that has been
5 apparent, as it is with the load forecast and other
6 things, for some time. The timing of that in the
7 normal course of the planning cycle can be no surprise
8 to anyone who has been involved with that issue.

9 In my submission the basic factors that
10 are being considered are clearly spelled out in Mr.
11 Eliesen's speech and do serve adequate notice of the
12 kind of topics that may be relevant to a consideration
13 of the revised figure.

14 I suppose in a perfect world all of this
15 timing would line up very nicely and we could stop
16 doing everything else. Well, we could either stop the
17 hearing while the work was being completed or some
18 other adjustment could be made. The simple fact of the
19 matter is that we are trying to bring information to
20 the Board as quickly as we reasonably can, but there is
21 no point in us pretending that there haven't been
22 changes when it is quite clear and would be quite clear
23 from the witnesses that there have been changes. And
24 we have tried to deal with this in just a practical and
25 straightforward manner, and I believe that is what we

1 are doing here.

2 THE CHAIRMAN: I think I heard you say
3 that there are no fundamental changes in methodology
4 and in planning techniques for NUGs. Are you
5 stipulating that here? I would say that in the context
6 that a document is being prepared and I am not quite
7 sure what that document is other than is it an
8 adjustment of the NUG forecast? Is that what it is?

9 MR. B. CAMPBELL: Yes, that's essentially
10 what it is.

11 THE CHAIRMAN: Is it a separate document
12 apart from the 1991 load forecast?

13 MR. B. CAMPBELL: Yes, there is a 1991 --
14 there is an annual non-utility --

15 THE CHAIRMAN: I'm sorry to interrupt.
16 Perhaps you can tell me what this document that's in
17 the course of being prepared is.

18 MR. B. CAMPBELL: It will be called
19 something like "The 1991 Non-Utility Generation Plan".
20 There is a 1989 version of that that has been referred
21 to. There is a 1990 version that was issued in the
22 fall of 1990, and it is an annual document that is put
23 out by the Corporation updating its expectations for
24 non-utility generation.

25 THE CHAIRMAN: And you are saying that

1 that won't be available until the end of October; is
2 that what you have said?

3 MR. B. CAMPBELL: That's correct.

4 THE CHAIRMAN: And recognizing all the
5 difficulties that you have and difficulties the people
6 who are working on it have and recognizing all that,
7 you do see that there is a problem to the people who
8 are wanting to deal in an expeditious way with the
9 cross-examination in Panel 5 if that document isn't
10 available to them, if it has anything of significance
11 in it, other than what you have told us that there has
12 been some new and unexpected major NUG opportunities
13 come on stream in the last year.

14 MR. B. CAMPBELL: Yes, I guess what has
15 been unexpected is the timing. The fact there were
16 proposals before Hydro totaling, approaching 3,000
17 megawatts is certainly general information that has
18 been available to everybody for some time.

19 What is happening is that some of those,
20 what are proposals, are getting close enough to being
21 actual non-utility generation contracts that it was
22 felt that it was appropriate to advise both the
23 intervenors to this hearing and IPPSO at its conference
24 what the expectations were.

25 But the fact that there were proposals

1 under active consideration is certainly not new
2 information. That has been in the works for some time.
3 What has happened is that a portion of them have got a
4 little closer to being actual projects.

5 I can advise the Board that it was
6 precisely for that reason that Hydro has departed from
7 its usual concern about not announcing these things
8 until, to put it in the vernacular, they are sort of
9 really done deals. We are not quite there yet but we
10 are close enough that we felt we should advise both
11 this panel, the intervenors, and the -- I can tell you
12 that Mr. Eliesen discussed that matter with the board,
13 the board of directors of Hydro at its September 9th
14 meeting, and as a result the speech went ahead on the
15 11th.

16 You will recall that I raised that matter
17 here last week and I had advised my friend the previous
18 week that I expected that the current view of NUG
19 affairs would be recorded in that speech.

20 And the kinds of factors that have come
21 into play in that increased success of moving proposals
22 into or very close to actual contractual arrangements
23 are spoken to as well in Mr. Eliesen's speech, not in
24 any detail but certainly some of the main factors are
25 discussed. ...

1 [11:35 a.m.] THE CHAIRMAN: If this changed was
2 discussed at the board of director level on the 9th,
3 then the board of directors must have something before
4 them in the way of a recommendation or document, or
5 something of that sort, on which they based the
6 decision to allow the speech to go forward on the 11th.

7 MR. B. CAMPBELL: I believe it was simply
8 Mr. Eliesen reported to the board the state affairs and
9 what --

10 THE CHAIRMAN: As you have described it.

11 MR. B. CAMPBELL: As I have described,
12 it, that's exactly correct.

13 I don't think it was anything that
14 required a board of director's approval.

15 It is clear that this matter has been
16 moved ahead of the kind of normal way, for instance,
17 that these matters go to board of directors is for
18 approval, where they are large enough transactions, is
19 that they require board of director's approval and
20 that's the normal course, that they would come that
21 way.

22 Mr. Eliesen wanted to be sure that the
23 Board was advised, didn't itself hear about this
24 indirectly, rather that they heard about these matters
25 directly from him, and that was the tenor of the

1 conversation on September 9th.

2 THE CHAIRMAN: Thank you, Mr. Campbell.

3 Do either of the submitters -- both are
4 standing up. Mr. Starkman first then.

5 MR. STARKMAN: I will just be very brief,
6 Mr. Chairman.

7 I want to be clear, we are not asking for
8 an adjournment. What we are asking for is that Hydro
9 provide the information that it has immediately,
10 provide it forthwith. They have some information.
11 They have the non-utility generation plan in some
12 format or another, in some draft format. Surely, they
13 should be required to put that information out now.

14 THE CHAIRMAN: Mr. Campbell tells me it
15 isn't even written in draft form yet completely.

16 MR. STARKMAN: Whatever information they
17 have, whatever it might be, I don't want to argue about
18 the words, what numbers, whatever they have, whatever
19 it was that lead Mr. Eliesen to form the impression
20 that the number should go up, whatever they have should
21 be provided now. It is certainly going to be provided
22 when the panel starts talking, when Panel 5 starts
23 giving its evidence, why can't they gave it to us now.

24 This is a planning hearing. They added
25 1,000 megawatts. That's more than a Darlington

1 reactor. This a multi-billion dollar decision that was
2 made. Surely there is some information which backs it
3 up.

4 Secondly, I would say that I appreciate
5 all the information that was given by Mr. Campbell, but
6 most of it was in the form of some evidence, evidence
7 about what was said to who, evidence about how these
8 NUG contracts came to fruition or when they didn't come
9 to fruition. All that, it's very informative, but
10 surely the way a planning hearing should go ahead is
11 not for the proponent's counsel to stand before the
12 Board and give some information which somehow explains
13 the planning process. The way to do this is for the
14 documents, the supporting material to come forward as a
15 matter of course from Hydro to explain how it was that
16 their plan changed in whatever way it changed.

17 THE CHAIRMAN: As I understand it, they
18 had unexpected good luck, they got ten new people who
19 total 1,200 megawatts. That's what Mr. Campbell says.

20 MR. STARKMAN: And that's very nice. I
21 am glad they did that. But they generated bookloads of
22 information and analysis to explain the 2,100. Now
23 they say it's 3,100. Maybe it should be 5,100.

24 Is it as fortuitous as we had good luck
25 this year and we didn't really plan on having that type

1 of good luck, so we put out a number of 2,100.

2 Maybe the number should be 4,100 or
3 7,100. I mean, we need to have to have some sort of
4 basis for this.

5 Maybe we are arguing because of Panel 5
6 coming, but it's also a question of what type of
7 planning process, what type of methodology is Hydro
8 engaged in. Does it give way to any form of analysis
9 or does the chairman just pluck a number out of the air
10 based on what he feels the situation is at any given
11 period of time. I mean, we would like to see that
12 information and see it in a timely fashion.

13 THE CHAIRMAN: Mr. Shepherd?

14 MR. SHEPHERD: Mr. Chairman, I didn't get
15 Mr. Campbell's answer to your question about the no
16 fundamental changes in methodology issue. You asked
17 him, are you saying that they are no fundamental
18 changes in methodology in the new plan, and I didn't
19 hear him answer that.

20 THE CHAIRMAN: I thought he said yes. He
21 made that statement anyway in the course and I just
22 want to be sure I understood it correctly.

23 MR. B. CAMPBELL: My understanding, Mr.
24 Chairman, and being cognizant of my friend Mr.
25 Starkman's concern that I not give evidence, is that

1 there is not a fundamental change of approach but there
2 are, of course, a number of factors that have changed
3 over the intervening time. Mr. Eliesen has given a
4 list of them in his speech as to what is seen as
5 having contributed to the success. But my
6 understanding is, that in terms of the basic way in
7 which the NUG division is going about doing its
8 business, the approach should be -- let me tie it back up.

9 The question is methodologies, and in
10 terms of analytic methodologies, it is not my
11 understanding that there is any substantial change.
12 There is certainly an increased concern as we get into
13 these levels, as I understand it, with transmission
14 limitations, but that is a matter that can be spoken to
15 in detail, we expect to speak to in detail in Panel 7,
16 the transmission panel, and I think there is time to
17 accommodate certainly, additional information on that.
18 I don't see that as a major problem.

19 I think this panel will be able to speak
20 to how those kinds of matters affect how they go about
21 doing their business.

22 But, on the simple question of
23 methodologies, it's not my understanding that there is
24 any fundamental change in methodologies, but there are
25 a number of factors that, as I say, are listed and

1 discussed in Mr. Eliesen's speech that do affect this
2 matter.

3 MR. SHEPHERD: Let me deal first with
4 transmission, Mr. Chairman.

5 I am quite happy to leave the details of
6 transmission to Panel 7 as my friend suggests.

7 I am concerned that when we get into
8 difficult issues of projections with Panel 5, their
9 blanket answer will be transmission, and we won't be
10 able to talk to them about it, but if that's the case I
11 guess we will run into that when we run into it. So, I
12 think we can leave that aside if the information is not
13 available yet.

14 With respect to the first two categories
15 of information, I have couple of comments.

16 First, Mr. Campbell says this is a new
17 practice this year to announce the number in advance of
18 the data being available. Well, that's just plain not
19 true. Mr. Campbell is aware that that's not true.
20 Last year at the IPPSO conference, Hydro Chairman
21 Franklin announced the new number two months prior to
22 the 1990 NUG plan.

23 MR. B. CAMPBELL: I'm sorry, Mr.
24 Chairman, I have to take objection to that.

25 What I said was not that it waited until

1 the plan, but that there were certain indicia that
2 Hydro felt had to be accommodated before additional NUG
3 transactions would be announced, and they have not been
4 announced previously, I am advised, without those
5 indicia having been met. In this case that practice
6 was relaxed specifically for my friend's clients'
7 conference and the preparations for Panel 5.

8 MR. SHEPHERD: I hadn't finished my
9 submission on that.

10 My second part of the submission was that
11 Hydro has made a practice every two months of
12 announcing in-service, committed and proposed projects
13 to the industry in writing. So, this is not new at
14 all.

15 The second comment I would make is, the
16 question was raised, are we putting the cart before the
17 horse here, and I guess there is a certain sense in
18 which we are.

19 If we are going to have a new NUG plan
20 with a very significant change, 1,000 megawatts is not
21 nothing. Then, if we could, the logical thing to do
22 would be to start Panel 5, not next week, but in
23 November when we have that information. That's the
24 logical thing to do.

25 In fact, if we could get Panel 6 on next

1 week, I would say that's what we should do. Now, I
2 suspect we can't.

3 THE CHAIRMAN: I think that's quite a
4 sensible suggestion but I think it is logistically
5 impossible, I would expect.

6 MR. SHEPHERD: Now, one wonders whether
7 if we delayed a week, the start of Panel 6, we could do
8 it. And I raise that just as a possibility because
9 that's really the answer. Rather than all of us
10 wasting our time talking about a plan that is already
11 out of date, a 1990 NUG plan that is already out of
12 date and fundamentally incorrect, it would make more
13 sense to deal with the current information.

14 There are two possible alternatives to
15 that: One is that Ontario Hydro provide us with the
16 current draft of the plan. Mr. Campbell did not say, I
17 don't think, it is not drafted. I think he said --

18 THE CHAIRMAN: The draft wasn't
19 completed, if I understood it.

20 MR. SHEPHERD: I believe he said there
21 are some portions that are not drafted. And I suspect
22 if we actually took a snapshot of it today, we would
23 find that those portions aren't the bulk of the
24 document.

25 As you can imagine, in organizations like

1 Ontario Hydro, if we are talking about something that's
2 going to be released in five weeks, it's probably
3 pretty well advanced, especially if the chairman has
4 announced the conclusion of it.

5 I, frankly, even if it's not very
6 complete, I would be interested in knowing the basis on
7 which Ontario Hydro's chairman thinks he can announce a
8 new NUG target. If there is nothing there at all, that
9 would be useful for this Board to know, that Ontario
10 Hydro goes public with new numbers without any data.
11 Of course that's not the case, but if it were the case,
12 then that would speak to your reliance on their
13 planning.

14 The final comment I would make is, if
15 there is no other way around this, if we simply have to
16 proceed ahead and we can't get the information for
17 whatever reason, then I would request that this Board
18 order an exception to the cross-examination rule at
19 least for my client. The cross-examination rule to
20 date, as I understand it, has been that once you are
21 finished your cross-examination you can only get up
22 again if something has been specifically raised in the
23 cross-examination by subsequent intervenors. If I am
24 not going to be able to ask about the projections in my
25 first go-around, then I would like this Board to order

1 that I would be allowed to ask about them at the end of
2 cross-examination of Panel 5.

3 THE CHAIRMAN: As I understand it, you
4 can ask them, in fact the panel will be prepared to
5 answer them.

6 The difficulty is, as I see it, it boils
7 down to this, to what extent does this missing
8 information impair, in any significant way, your
9 ability to conduct your cross-examination. That's
10 really the issue.

11 As I understand it, the information will
12 be available on the cross-examination. I remind you
13 that this is a little different from an ordinary piece
14 of litigation. The cross-examinations to date have
15 been information-gathering techniques in preparation, I
16 take it, for the intervenor cases that are coming in
17 later. So, to that extent, the problem isn't as acute
18 if this were a piece of contested litigation which you
19 would have to, in effect, have a discovery before you
20 did your cross-examination.

21 MR. SHEPHERD: Mr. Chairman, I recognize
22 that. I guess two things about that.

23 First of all, we don't intend to
24 cross-examine on the projections primarily to gather
25 information; we intend to cross-examine on the

1 projections to demonstrate that they are incorrect
2 through cross-examination. So, in that sense it is a
3 little more like litigation on that issue.

4 Secondly, the reason why intervenors need
5 information in advance is so that they can focus
6 technical issues, so that they can have their questions
7 prepared, they can be briefed by experts, rather than
8 just going on a fishing expedition and see what
9 happens. That's my concern.

10 Those are those are my submissions.

11 THE CHAIRMAN: We will adjourn for a few
12 moments and discuss this.

13 THE REGISTRAR: The hearing will take a
14 short recess.

15 ---Recess at 10:50 a.m.

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25 ...

1 ---On resuming at 11:04 a.m.

2 THE REGISTRAR: Please come to order.

3 The hearing is again in session. Be seated, please.

4 THE CHAIRMAN: We are all of the view
5 that the alteration in the NUG potential, as disclosed
6 by the chairman of the proponent last week, represents
7 a significant change in the plan that is now before us
8 and we are in agreement with the intervenors who have
9 raised the issue that this is a matter for which they
10 should have information to assist them in preparing
11 their cross-examination.

12 Further than that, the panel feels that
13 it has a responsibility in order to properly address
14 the issues before it, that it should be able to have
15 the best information and the best efforts of the
16 intervenors in eliciting the responses for the
17 questions which they wish to put to the proponent.

18 The overriding concern which has been
19 expressed many, many times both here and elsewhere
20 about the length of this hearing makes it important not
21 to, in any way, delay hearing time.

22 Panel 5, which is the non-utility
23 generation panel, is scheduled to commence when this
24 current Panel 4 is over, which will be in a very few
25 days.

1 We would expect that the proponent's
2 Panel 5 will be now in preparation for the evidence
3 that they are going to give, including the issues
4 raised by the increase projection alluded to by the
5 chairman in his address last week.

6 It seems to us reasonable that Hydro
7 should be able to at least provide a witness statement
8 in writing from that panel which would detail, to the
9 extent they are able to do, the basis of the evidence
10 they propose to give in response to this new
11 development and that that should be done as soon as
12 reasonably possible and in any event, no later in our
13 view than the end of the current week, which would be
14 this coming Friday.

15 Does that present any difficulty, Mr.
16 Campbell?

17 MR. B. CAMPBELL: I think it is going to
18 be difficult to achieve. As in all these matters, it
19 is a question of how much detail is enough detail for a
20 very detailed review of... I am just --

21 THE CHAIRMAN: The panel is going to be
22 (a) giving evidence and (b) being prepared to answer
23 questions that are asked, I think you said.

24 MR. B. CAMPBELL: Yes.

25 THE CHAIRMAN: And the panels in the past

1 have certainly had detailed preparation, so I would
2 think that this shouldn't be too great a problem.

3 MR. B. CAMPBELL: Certainly the level of
4 detail that is normally given in direct testimony I
5 expect could be accommodated by the end of the week or
6 early next week.

7 I will tell you, frankly, that with the
8 load of interrogatories, that it has been sometimes
9 very hard seven-day-a-week job to bring the direct to
10 the point where it has been presented to this Board.

11 I make no apologies for that. That has
12 simply been a fact of life, given the various
13 activities that each panel has to go through in terms
14 of the material that is provided to intervenors in
15 response to interrogatories.

16 I am a little reluctant to give a hard
17 assurance for Friday. I think with the weekend to look
18 at the beginning of next week, I think I certainly can,
19 and we will do our best efforts to meet Friday, but I
20 am a little reluctant without speaking to the people
21 involved to give a hard assurance.

22 I think given the efforts they have been
23 making on interrogatories throughout and what I know,
24 that for me to give an absolute assurance of that
25 without speaking to them would probably be a little

1 unfair on my part.

2 THE CHAIRMAN: Generally, I think what I
3 would expect to see in the witness statement, not only
4 what they were going to say, but really what the basis
5 was for the chairman making those remarks that he did
6 at the meeting. I think that is something that there
7 must be some ability to do at this stage.

8 Granted that the definitive document is
9 not yet finalized and when it is finalized, if there
10 are any substantial changes in it, then that may have
11 to be a subject of some kind of re-opening technique.
12 We will cross that bridge when we come to it.

13 MR. B. CAMPBELL: As I say, I think in
14 terms of identifying the major factors that are
15 influencing that judgment in that area, that shouldn't
16 be a problem.

17 As I say, I haven't had the opportunity
18 to speak to these people. We can make best efforts for
19 Friday. Whether we end up slipping to the other end of
20 the weekend is something that I think I will just have
21 to deal with as we go through, but we can certainly do
22 our very best.

23 THE CHAIRMAN: In that case, we may have
24 to consider the delaying the opening of the NUG panel
25 if it isn't done by the end of this week, but that's a

1 number of factors in involved in that; how long is
2 Panel 4 going to take and so on and so on. I am not
3 going to make any definite statement at this time, but
4 I think the intervenors should have a reasonable
5 opportunity to assess what is there and have their
6 experts deal with it.

7 MR. B. CAMPBELL: I understand the risk
8 of delay, Mr. Chairman, and I can assure you that we
9 have no incentive and certainly no wish to cause any
10 delay whatsoever. That exact same spirit is what led
11 us to bring forward the position when we did, to get
12 matters dealt with as early as possible.

13 THE CHAIRMAN: All right. Does that
14 complete that matter? (No response) Perhaps we should
15 take a break, so that we can then have coffee and then
16 go uninterrupted through until 1:00. We will take a
17 break for 15 minutes.

18 THE REGISTRAR: The hearing will break
19 for 15 minutes.

20 ---Recess at 11:12 a.m.

21 ---On resuming at 11:35 a.m.

22 PAUL JONATHAN BURKE,
23 AMIR SHALABY,
24 MARION ELIZABETH FRASER,
25 LYN DOUGLAS WILSON,
 WILLIAM OSBORNE HARPER,
 IAN DUNCAN MacLELLAN; Resumed

1 THE REGISTRAR: Please come to order this
2 hearing is again in session. Be seated, please.

3 THE CHAIRMAN: Ms. Omatsu.

4 MS. OMATSU: Good morning, Mr. Chairman,
5 Counsel, Hydro panel.

6 My name is Maryka Omatsu. I am Counsel
7 for OMAA, the Ontario Metis and Aboriginal Association.
8 Just for the record, I will not be representing NAPA
9 for this Panel. They will not be submitting a
10 cross-examination.

11 I have basically four modest proposals to
12 put before you witnesses, and despite urging from one
13 counsel that I ask you all my four proposals and see if
14 you agree and then if you do, step down, I think
15 perhaps maybe I will have to go through them.

16 My first proposal has to do with demand
17 management and conservation.

18 MR. B. CAMPBELL: Mr. Chairman. Excuse
19 me. We were just provided before break with material
20 to be referred to in cross-examination and I take it
21 Ms. Omatsu will be going through that and perhaps we
22 should give it an exhibit number.

23 MS. OMATSU: That is true. Thank you
24 very much. I forgot.

25 MR. B. CAMPBELL: We received this just

1 at the end of the break. I would like to get a number.

2 THE REGISTRAR: To which are you
3 referring, Mr. Campbell?

4 MR. B. CAMPBELL: It is a document,
5 entitled "Witness Panel 4, OMAA cross-exam documents."

6 THE REGISTRAR: Thank you, very much. It
7 will be No. 297, Mr. Chairman.

8 THE CHAIRMAN: Thank you.

9 ---EXHIBIT NO. 297: Witness Panel 4, OMAA cross-exam
10 documents.

11 CROSS-EXAMINATION BY MS. OMATSU:

12 Q. Mr. Wilson I would like to run this
13 by you. I believe you said that talking about demand
14 management - this is a definition - that it is any
15 action taken by an electric utility intended to
16 influence the level or timing of customers' electricity
17 demand.

18 MR. WILSON: A. Yes. That is an EPRI
19 definition prepared by the Electric Power Research
20 Institute and I suggest that that is an opening to
21 define the various kinds of manipulation of the demand
22 for electricity that electric utilities are interested
23 in doing. We define our approach more broadly than
24 EPRI does.

25 Q. I suppose from that definition,

1 demand management could result in an increase in energy
2 demand?

3 A. Yes, it could where that is the
4 objective of the utility that is practicing demand
5 management programs, to increase load.

6 Q. Right. And I think in response to
7 Interrogatory 4.2.10, which was raised in the Energy
8 Probe cross-examination, it wasn't until some time in
9 the '80s that Ontario Hydro encouraged efficiency and
10 also increase in electricity use; is that correct, or
11 had the side effect of increased electricity use?

12 A. Yes. That was one of our objectives
13 in the 1980s, where that was in the customer's best
14 interest.

15 Q. Right. And the rationale for that
16 was that it was in the customer's best interest?

17 A. Yes. Ontario Hydro had a surplus of
18 generating capacity and some uses of electricity could
19 be encouraged, and if the people would use electricity
20 for those purposes in those times, the average cost of
21 electricity would go down.

22 Q. Right. But sometime, I take it, in
23 the '80s, you changed your thinking on this; is that
24 correct?

25 A. I guess so. Not entirely. I think

1 our objective has not changed appreciably, but the
2 circumstances changed and the surplus of generation
3 that we expected to have into the mid '90s virtually
4 disappeared by the early '90s, or was forecast to do so
5 and it became time to shift gears.

6 Q. So, do I understand now that you have
7 a kind of new mandate where you will not be encouraging
8 increase in electricity consumption?

9 A. We have no programs of that objective
10 today.

11 Q. So, you will no longer be encouraging
12 people to consume more electricity?

13 A. Not with that objective, no. We
14 answered questions a few weeks ago about
15 electrotechnologies that substitute for technologies
16 that use other fuels where electricity is a good
17 product. It has cost advantages, quality control
18 advantages, productivity improvement advantages and
19 environmental advantages, and so that we will continue
20 to provide service to our customers when they ask us
21 about those.

22 Q. And even if a program that you had
23 resulted in more electricity efficiency, I believe, Ms.
24 Fraser, you had said that you were going to drop your
25 hot water wrap program because of a shift in policy; is

1 that correct?

2 MR. MacLELLAN: A. Actually, that was a
3 residential program. We are dropping the hot water
4 wrap program not because of a shift in policy, but for
5 two reasons; one, until we figure out where we are
6 going in fuel substitution, and the second because we
7 had planned to supersede that program with another more
8 comprehensive home tune-up program.

9 Q. I have a definition of
10 "conservation". Perhaps I could put it before you and
11 I apologize to any person or company that finds offense
12 with it.

13 I make an analogy with conservation to
14 dieting and I would put forward to you there are two
15 kinds of diets. One would be a simple diet where you
16 would just simply cut back on your calories. Instead
17 of having beer, you would have low-cal beer. Instead
18 of having sour cream on your potatoes, you might have
19 low-cal sour cream. I will refer to this as the Jane
20 Fonda diet.

21 I have another diet where I believe it is
22 a more radical diet where you would actually cut back
23 on your intake and perhaps we could call that the Tom
24 Lasorda diet, the Manager of the L.A. Dodgers' diet.

25 In the definition of demand management

1 that we spoke of earlier, demand management is any
2 action taken by an electric utility intended to
3 influence the level or timing of customers' electricity
4 demand.

5 Would you say that demand management is
6 conservation by either of these two diets, either the
7 Jane Fonda diet or the Tom Lasorda diet?

8 MR. WILSON: A. I think our approach is
9 to promote a Jane Fonda diet; to cut the calories, but
10 not to do without the sour cream on your potato.

11 If you change your mind and you decide
12 you do not like sour cream anymore, that is fine, too,
13 but we are not going to try to persuade you to enjoy
14 your potatoes without the sour cream.

15 Q. In terms of fuel switching and
16 conservation, it seems to me that before perhaps we
17 were on all-electricity diet, perhaps we were eating 10
18 slices of white bread a day and through fuel switching,
19 we are now eating five slices of white bread and five
20 slices of brown bread.

21 In my opinion, I wonder if you would
22 agree that fuel switching is simply a diversification
23 of our consumption and not necessarily conservation of
24 energy.

25 ...

1 [11:45 p.m.] A. It's a difficult question. To some
2 degree it is diversification and to some degree it is
3 truly a conservation of energy.

4 I will use a home heating example. To
5 the extent that someone uses natural gas in a
6 high-efficiency furnace, they will burn that gas with
7 95 per cent efficiency.

8 If they were to use electricity instead,
9 and that electricity were supplied entirely by Ontario
10 Hydro burning natural gas in a power station, the
11 efficiency with which that energy would be delivered
12 from burning of the gas to the home would probably be
13 somewhere around 50 per cent or -- well, even less than
14 that.

15 It's unfortunately not true that the
16 electricity it takes to heat a home is always produced
17 by natural gas and, in fact, Mr. Shalaby showed, with
18 his second favorite graph, to us last week that natural
19 gas, oil and coal would be in the mix most of the time
20 for home heating. So any analysis of substitutions of
21 white bread for brown and so on is complex.

22 But to the extent that fossil fuel can be
23 burned more efficiently at the place where it is used,
24 that it would be energy efficient and will be a
25 conservation of a natural resource.

1 Q. But would you not agree that fuel
2 switching is essentially not conservation in the sense
3 that we are not conserving energy, we are not turning
4 our thermostats down to 65 degrees, we are just heating
5 our houses perhaps with natural gas and there may be
6 some kind of saving in that sense but basically it is
7 not a cut in our style of living, a cut in our intake
8 or a major conservation move.

9 A. If I were to come back to your diet
10 analogy, fuel switching is essentially not.

11 A Tommy Lasorda type of diet. It doesn't
12 require a reduction in life, life style enjoyment.

13 Q. How would you categorize energy
14 efficiency in terms of these two conservation examples,
15 your EEI --

16 A. Well, electrical energy efficiency is
17 simply getting the job done, still using electricity
18 but using less to get the job done.

19 Q. So, it also would be a Jane Fonda
20 diet would you say.

21 A. Yes, it is.

22 Q. I suppose what you are telling me was
23 reflected in a discussion that came up in your direct
24 examination where Mr. Burke said that you were not
25 trying to induce a lifestyle change, and that's on page

1 4 of my materials. And then Mr. Wilson, you responded
2 that success in demand management would actually
3 require a fundamental shift in people's behaviour. And
4 Dr. Connell asked both of you gentlemen to explain that
5 apparent contradiction and -- you both agree with this?

6 MR. BURKE: A. Well, all right. I will
7 paraphrase what I think the essence of that discussion
8 was before. My point was that we don't, we are not
9 basing our projections on a change in the quality of
10 the energy services that people have available to them.

11 And Mr. Wilson's point is that we are
12 trying to change people's attitudes so that when they
13 satisfy their energy service requirements, they seek
14 the most efficient ways of doing that and we are not
15 having to be involved as much ourselves directly in
16 changing every light bulb and heating system and so on.

17 The public themselves will undergo a
18 value change so they themselves will seek out the most
19 most efficient way to provide the energy services, but
20 we are not, at this point, suggesting that when they do
21 so, they proceed to seek less energy service. We are
22 basing our plans on the fact the public will seek the
23 service it otherwise would have required, but through
24 the value change over time, they will do so of their
25 own accord and leave less role for Ontario Hydro.

1 That was the distinction I think we were
2 making and so it wasn't really a contradiction.

3 Q. I believe in response to Dr.
4 Connell's question on the point, Mr. Wilson, you said
5 that on page 7, at the middle of the page, "I think a
6 lifestyle change is just the opposite of what people in
7 Ontario want." And then on page 8, you said that, at
8 lines 4 to 6, "In fact, the most fundamental behaviour
9 change we are looking for is purchasing behaviour." Is
10 that correct?

11 MR. WILSON: A. Yes.

12 Q. I take you are taking your cues from
13 what you perceive to be the public's position on this,
14 and that was introduced in Interrogatory 11.2.9 by
15 Energy Probe in its cross-examination of the Goldfarb
16 Report where as you recall there seemed to be a lack of
17 awareness of Ontario running short of electricity on
18 the part of the answers of the questionnaire; is that
19 correct?

20 A. Yes, that was what the report said.

21 Q. In that they were in favour of
22 conservation but conservation without inconvenience?

23 A. That's correct.

24 Q. And actually in that Energy Probe
25 exhibit that was filed, and it is page 14 of my

1 exhibit, it turns out that although 60 per cent of the
2 public are more energy conscious, some 65 per cent have
3 gone no further than turning off their lights. Is that
4 correct?

5 A. I think you are quoting here from
6 Energy Probe's final argument to the Ontario Energy
7 Board hearing.

8 Q. Yes, I'm sorry. This was Exhibit
9 278. Do you agree with that?

10 A. Perhaps Mr. MacLellan would like to
11 respond. But just in general terms, my understanding
12 is that people are in favour of conservation. They are
13 generally satisfied that they have done some reasonable
14 things. They point with pride to the things that they
15 have done; point to their neighbours for all the things
16 that they haven't done.

17 And the objective of one of the major
18 thrusts of our residential programs is to bring to
19 their attention all the things that they could yet do
20 quite inexpensively.

21 MR. MACLELLAN: A. A couple of points
22 relating to the numbers that Energy Probe was using. I
23 don't know the number offhand, I can't confirm it.

24 THE CHAIRMAN: It looks as if Energy
25 Probe is purporting to quote the Goldfarb Report.

1 MR. MacLELLAN: Yes, I believe so.

2 Now a couple of issues. That Goldfarb
3 Report was in '89, and we actually used that report to
4 then go on for some further research to find out how we
5 can then get a greater percentage of the people to do
6 something.

7 We found that a large number of people,
8 as Mr. Wilson said, aren't aware of what they could do,
9 and therefore they thought they had done everything
10 they could, so we needed to prepare programs to inform
11 them as to what else they could do. And there were
12 also a fair group of people who knew they had to do a
13 fair bit but they didn't know where to start. So,
14 again, some of our programs are along those lines to
15 help them know where to start and give them a little
16 push.

17 MS. OMATSU: Q. I have heard that
18 Ontarions use more electricity per capita than anyone
19 else in the world; is that correct?

20 MR. BURKE: A. It is one of the higher
21 use per capita jurisdictions, that's true. But usually
22 what those analyses represent is the total consumption
23 of electricity in the province divided by the number of
24 people as opposed to the residential use per capita,
25 and that's a little more difficult to obtain data for

1 and rarely is that comparison actually the one that's
2 made.

3 So that what you are getting in that
4 number is the nature of our industrial infrastructure
5 as well as the home consumption habits, but it wouldn't
6 surprise me even so if Ontario residential customers
7 per capita use a very high amount of electricity on a
8 global basis, and there are numerous reasons that could
9 explain some of that anyway.

10 Q. Do you want to expand on any of
11 those?

12 A. Well, I think in Panel 1 we went into
13 a lot of the factors that cause electricity consumption
14 patterns to differ from jurisdiction to jurisdiction.
15 But for the residential sector, our climate is a
16 factor, the size of the houses we live in is a factor,
17 the price of electricity relative to other
18 jurisdictions is certainly a factor because it is
19 relatively low compared to some other parts of the
20 world and so on. I think those are three of the major
21 elements contributing to high electricity use per
22 capita.

23 Q. By any chance would you happen to
24 know on a scale of use how Ontarions rate with Swedes
25 for example? They have similar climate, I assume.

1 A. Well, on an economy basis, actually
2 it is quite interesting that the total consumption of
3 electricity in we Sweden per person is not very much
4 less than it is in Ontario. And perhaps in the
5 residential sector it may be more so, there may be more
6 of a contrast.

7 But my understanding is that Sweden uses
8 roughly a 130 terawatthours for a population of 8
9 million and we use about 140 terawatt hours for a
10 population of 8-1/2 to 9 million, so at that gross
11 level there isn't a huge difference. I think when you
12 get down to individual uses in the residential sector,
13 there is no doubt that the Swedes are more efficient.

14 Q. My first proposal to you is that
15 perhaps Ontarions should be put on a more rigid diet in
16 that Ontario Hydro should advocate more clearly an
17 energy conservation ideology and not the Jane Fonda
18 diet that we had discussed earlier.

19 MR. WILSON: A. My colleagues aren't
20 eager to address your proposal.

21 We sought the sort of direction and
22 feeling of government and a large number of
23 stakeholders in the electricity supply in Ontario in
24 the mid-80s as we discussed options for the future and
25 strategy for the future.

There is no question that there is a preference for economy in the use of energy and electricity in particular. But one of the messages that didn't come through loud and clear was a sense that Ontario Hydro should be a moral force for a more rigid diet, energy diet, and I believe that our mandate is to read as best we can the desires of the people of Ontario and prepare ourselves to do our part to fulfill those desires.

I think if the government, which is obviously elected by the people, judged that the public sentiment was that much more rigorous, a much more rigorous diet was the desirable way to proceed, then we would receive that direction from government and we would do our part in acting on it.

Q. Are you saying that to go from the Jane Fonda to the Tommy Lasorda diet you would need further direction from the Ontario government?

A. Yes.

• • •

1 [12:00 p.m.] Q. Thank you. I would like to go into
2 my second proposal, and now I would like to talk about
3 the same concepts, all about demand management and
4 conservation, but this has to do with the concept of
5 electrical self-sufficiency. I just want to confirm
6 that my understanding of the facts is the same as
7 yours.

8 I believe page 15 of my exhibit,
9 electricity share of the energy market is up 20 per
10 cent as of '89 and that natural gas was around 34.6 per
11 cent.

12 And talking now only about electricity,
13 page 16 of my exhibit, you divided your customers into
14 three, with industry as your major customer at 36 per
15 cent, the commercial sector as 34.3 per cent, and the
16 residential sector at 28 per cent; is that correct?

17 MR. BURKE: A. That's right.

18 Q. Yes. Thank you.

19 We were told by Ms. Fraser that 35 per
20 cent of municipal electricity utility's bill is in
21 lighting, and also by Ms. Fraser that 50 per cent of
22 the retail sector's electricity bill is also in
23 lighting.

24 MS. FRASER: A. I'm sorry, where are the
25 references to that?

1 Q. I believe it's page 17. No, I am
2 sorry, it's Volume 48, page 8750, line 6 and 7.

3 A. It's 35 per cent of a municipality's
4 energy bill. That's the energy consumed, energy bill
5 paid by a particular municipal government on average.
6 That's not how much, say, the City of Toronto, in
7 total, all the customers use for street lighting. So,
8 that's a completely different type of number than what
9 you just indicated.

10 Q. The retail sector quote, I believe,
11 was in Volume 48, page 8645.

12 A. Yes. That's the retail segment,
13 i.e., a store, 50 per cent of a store's electricity
14 bill goes for its lighting bill.

15 Q. So, I assume that's the rationale why
16 you have concentrated so much on lighting in your
17 electrical efficiency programs and that has been a
18 great deal of the testimony that you have given to the
19 Board.

20 A. Yes. If we look at the commercial
21 sector as a whole, 35 per cent, around 35 per cent of
22 the total end use of lighting is accounted for by
23 lighting. In industrial it's around 10 or 11 per cent.
24 I am not sure what it is in residential.

25 But the savings, the percentage savings

1 that could be achieved by lighting are substantial.

2 Q. You have advised us of the T8
3 lighting systems and the electronic ballasts as a
4 method of cutting down on these electricity bills.

5 A. That's one way, one system.

6 Q. Right. Talking about these retail
7 stores that might spend 50 per cent of their
8 electricity bill on lighting, I assume most stores are,
9 at most, open 12 hours a day. Does Hydro advise them
10 to turn off their lights for 12 hours a day?

11 A. Actually, most of the stores are open
12 longer than that by the time you put in when the
13 manager arrives at 8:00, the store may not open until
14 10:00, and then there is usually stocking down after
15 hours and things like that, so the lights are on

16 We do encourage, we have a lighting
17 brochure sure on energy efficient lighting in the
18 retail sector that we issued in 1988, I believe, that
19 encourages both more efficient use of lighting and
20 where they can, to turn it off when they need to.

21 For example, there is some impression
22 that by leaving the lights on in the store, it improves
23 the security in a store. And actually there are other
24 systems such as high-pressure sodium systems that can
25 be used for security which use a lot less electricity

1 when you are not using the lighting as part of your
2 merchandising strategy, and we certainly encourage
3 storeowners to look at those systems and provide
4 incentives for them to do so.

5 Q. It seemed a very simply way to cut
6 your bill in half by just turning off your lights. I
7 wondered if something so clear and simple couldn't be
8 put forward to the public as part of your message on
9 saving electricity?

10 MR. MacLELLAN: A. It has been put
11 forward in virtually in all of our literature related
12 to lighting over the last five years or so.

13 Before we got into some different
14 lighting technologies for residential use, that was
15 always one of the primary pieces of advice we gave, as
16 well as things like timers and dimmers and motion
17 sensors and various ways to do it like that.

18 Q. I notice, however, that your
19 customers are not following your advice. For example,
20 in this building I sometimes stay until 9:00 at night
21 and when I leave all the lights in the entire building
22 are still on. I assume they probably are on all night.

23 When we took a site visit to Moose
24 River/James Bay the other week, the communities there
25 in arguing against additional hydraulic supply asked

1 Torontonians to turn off their lights in downtown
2 Toronto at night. Do you think perhaps that you will
3 be able to put this message more forcefully to your
4 customers?

5 MS. FRASER: A. In terms of downtown
6 Toronto, both Toronto Hydro, Ontario Hydro and the
7 Building Owners' and Managers' Association have been
8 working on, and in April launched a campaign to turn
9 off lights lights in downtown, and we are certainly
10 encouraging that.

11 I have certainly been noticing since that
12 time a tendency for more of the downtown office
13 lighting to be turned off, whether we can sustain that
14 over time I don't know.

15 One of the reasons that the use in
16 downtown lighting crept up so high in the late '80s is
17 that a lot of financial firms and even some legal firms
18 were working two and sometimes three shifts of
19 clerical, and of course the financial community with
20 trading now virtually 24 hours a day globally, some
21 financial companies.

22 What we have to do is encourage when
23 either renovating a building or in the design of a new
24 building, to use a lot more zone control lighting so
25 that parts of the floor can be turned off rather than

1 the whole building at once, encourage that kind of
2 thing.

3 Q. Are there any legislative impediments
4 to Ontario Hydro taking a more conservationist
5 approach? Is it a legislative barrier or an internal
6 barrier? What is the barrier that you alluded to?

7 MR. WILSON: A. I don't think there is a
8 barrier.

9 As I explained to you a few minutes ago,
10 we do our best to read the requirements of the
11 community we serve, and the message we have is that a
12 Jane Fonda diet is what the people are looking for.

13 Q. Right. I think you said that you
14 would need more clear instructions from the province if
15 you were going to go to the Tommy Lasorda diet. Is
16 that a policy kind of message that you require from the
17 government? Is that what you require, or is there some
18 impediment?

19 MR. B. CAMPBELL: Ms. Omatsu, in terms of
20 the legislation itself, if you are dealing specifically
21 with the legislation, it is clear in Hydro's submission
22 that there is a positive obligation to serve; that is,
23 Hydro does not have the right, being a public utility,
24 not to provide electricity.

25 As you have heard from Mr. Wilson, at a

1 policy level, the social choices that are made
2 generally, it has been Hydro's position, as stated by
3 Mr. Wilson, that the Hydro board of directors are
4 perhaps not the best place for those decisions to be
5 made. Mr. Wilson can speak to that.

6 On the legislative side there is, arising
7 out of the Power Corporation Act, a positive obligation
8 to serve.

9 MR. WILSON: Did you have a question?

10 MS. OMATSU: Q. Did you have anything
11 further you wanted to add to your counsel's comments?

12 MR. WILSON: A. No, I don't think so.

13 Q. I would like to take a look at the
14 industrial sector who consume, as I understand, 36 per
15 cent of the electricity you produce. If one can read
16 the Globe and Mail, which is page 22 of my exhibit,
17 some 50 million companies in this province consume 17
18 per cent of the electricity produced. That's page 22,
19 in the middle.

20 Actually, if my calculations are correct,
21 some 30 large utilities consume 56 per cent of the
22 electricity produced in the province, so therefore some
23 89 corporate entities actually purchase some 73 per
24 cent of the electricity you sell.

25 I am concerned mostly to talk about these

1 59 companies, energy gobblers as I will call them, and
2 I wonder if you can tell us why there was no
3 concentrated emphasis on these 59 companies.

4 MS. FRASER: A. Yes, there is, and I
5 believe I indicated in my direct evidence when I talked
6 about the industrial program strategies, that there are
7 actually 200 or so large industrial customers whose
8 average monthly demand exceeded 5 megawatts, some of
9 those are served directly by Ontario Hydro, some are
10 served by municipal utilities, and they account for
11 about 23 per cent of total provincial electricity use.
12 We have a very strong targeted approach to these 200
13 customers. I indicated the various programs that we
14 have in place to do that on a very customized basis,
15 customer by customer, and they have taken advantage of
16 a lot of our programs.

17 Q. Perhaps I might have misunderstood
18 you in your testimony.

19 I was primarily looking at what in my
20 exhibit is page 23 and 24 of the overheads that you
21 showed us in your direct, which showed that the
22 industrial sector was going to, basically, produce 11
23 or 12 per cent of your potential savings. Given that
24 the other two sectors will make up the other 88 odd per
25 cent, I thought it was slightly insignificant relative

1 to the other sectors what you were targeting from the
2 industrial sector.

3 A. Page 23, which is page 37 in our
4 Exhibit 260, is a description of the potential that our
5 analysis case is there. This does not reflect our
6 programs or what we expect to get from each of those
7 sectors.

8 The pattern that you see reflected here
9 in the potential numbers reflect in many ways some of
10 the impacts of some of the various gaps that I talked
11 about in my direct evidence, such that in commercial
12 you tend to get a lot more of the cases what we would
13 call sort of a split incentive where the tenant pays
14 the energy bill and the building manager just passes it
15 on, so there is no incentive for either of them to
16 change the lights in the building, for example, or to
17 make sure they are turned off. We have talked about
18 the non-profit housing that's been built using a
19 maximum unit price guideline from the government, and
20 those kinds of institutional barriers to energy
21 efficiency.

22 In the industrial sector there are two
23 issues here at play. One is the heterogeneity of the
24 marketplace prevents us from doing the sort of building
25 type by building type analysis that we have done for

1 commercial or can be done for residential as we did
2 using our 1,000 home audit study. But as we get more
3 information you can see the change between the DSP to
4 the 1990 load forecast number, although it's smaller in
5 absolute terms, it's larger in percentage terms as we
6 get more information about new technologies and
7 processes that we can use in industrial.

8 So, it is not an issue of just going
9 after a little bit in the industrial, but going after
10 as much as we can get in each of the sectors; it's just
11 that there are different amounts to get in each of the
12 sectors.

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1 [12:15 p.m.] Q. I believe in your direct, you gave
2 reasons why you didn't expect to get so much from the
3 industrial sector.

4 Page 25 of my exhibit, Mr. Burke, at the
5 bottom of the page, you said that only 1 per cent of
6 the sector load is used for space heating and on page
7 26 of my exhibit, Mr. Burke, you also mentioned how
8 heterogeneous the industrial sector was as another
9 problem that you confronted.

10 And on page 27 of my exhibit, Ms. Fraser,
11 you talked about the short payback barrier, that these
12 companies usually only want to spend money that will
13 return them in a year-and-a-half.

14 Are these the problems that you see
15 confronting you in making gains with the industrial
16 sector?

17 MR. BURKE: A. Well, to take your
18 selected passages in turn, the quote referring to the
19 industrial sector where it says less than 1 per cent of
20 total load is used for space heating was with respect
21 to the potential for fuel switching and in that sense,
22 it is not really in the same context as you have been
23 discussing up to now; that is, the potential for
24 electrical efficiency improvement in the sector.

25 The next quote was in the context of our

1 ability to put standards or to imagine, contemplate
2 standards applying to the industrial sector and it was
3 to explain that were we to contemplate a case in which
4 standards were applied to the fullest extent, we did
5 not think that you could apply them broadly in the
6 industrial sector, given their heterogeneity.

7 So, I am not sure that those two quotes
8 reflect reasons why we feel that the industrial sector
9 is the most difficult to deal with from the point of
10 view of electrical efficiency improvement programs.

11 I think the issue is still that most of
12 the measures are site-specific, much of the potential
13 remains in processes that are specific to individual
14 plants where we have been fairly forthright in
15 suggesting we do not knowing the potential at this
16 point, and that further study is necessary, will be
17 undertaken, and I would suggest the potential will rise
18 as we get into those detailed studies.

19 Those are going to be expensive studies,
20 they will be one-off studies and it will be very
21 difficult in practice in many cases to account
22 carefully for what savings are pure energy savings and
23 which ones, as you substitute different technologies in
24 an industrial process will actually confer benefits on
25 the company other than simply energy savings.

1 The company may reap substantial economic
2 benefits from new technology being applied in their
3 plant and we will have to be very careful to sort that
4 out so that we are not, in fact, subsidizing the
5 proceed modernization of industry in Ontario.

6 I think that is why it will be very
7 difficult in practice to come up with good numbers for
8 the industrial sector. We will probably have to take
9 it on a case-by-case basis and that harks back to Ms.
10 Fraser's reminding us of the point that we were using
11 standardized analyses in the residential and commercial
12 sectors; typical houses, typical buildings, and that
13 that doesn't apply in the industrial sector.

14 Q. In your opinion, do you feel that
15 this sector and these 59 companies in particular who
16 consume 17 per cent of the electricity are pulling
17 their weight in terms of efficiency and conservation?

18 MS. FRASER: A. Yes. And if we go over
19 some of the results that Mr. Poch and I talked about on
20 Thursday, the larger proportion of the results to date
21 have come from the industrial sector for load shifting
22 and for energy efficiency.

23 Q. Let's split the two; separate load
24 shifting from energy efficiency because I would say, I
25 would put to you that energy efficiency is more

1 conservationist.

2 A. The energy efficiency results we were
3 talking about with respect to 1989 and 1990, the
4 industrial sector has produced the most in absolute
5 terms, and in 1991, I believe that also the results are
6 tracking ahead, in absolute terms.

7 Q. Is Ontario Hydro pursuing
8 investigations of electrical self-sufficiency for any
9 of these companies? By that, I mean that, for
10 example - Mr. Burke, you have furrowed your brow - I
11 mean, for example, if a company produces a great deal
12 of heat, that cogeneration might be a possibility and
13 that perhaps these companies should be encouraged to
14 become energy and electrically self-sufficient. Is
15 that in the cards? Is that any of the message that you
16 are promoting?

17 MR. SHALABY: A. It is, and I think
18 Panel 5 will deal at length as to the self-generation
19 or generation by companies to satisfy their own needs
20 of energy and electricity. That will be the subject of
21 Panel 5.

22 Q. You are telling me that it is part of
23 your program and your mandate that you are pursuing;
24 electrical self-sufficiency for these companies?

25 A. I don't know whether it is

1 self-sufficiency, but I think Hydro is encouraging
2 development of opportunities that generate the
3 electricity within companies, such as pulp and paper
4 companies or steel companies that are economic and
5 environmentally sound.

6 Q. Well, that is my second proposal,
7 that you promote electrical self-sufficiency for these
8 energy gobblers, so I am pleased that you accept the
9 second proposal of my modest proposals.

10 My third one has to do with your
11 conservation strategy. I suppose these questions arise
12 from the responses that you gave to the counsel for the
13 Ontario Gas Association.

14 I wonder if the government initiatives
15 regarding fuel switching came as a surprise to you?

16 MR. WILSON: A. I find it very hard to
17 be surprised anymore. Certainly the subject of fuel
18 switching and the appropriate kind of fuel has been
19 percolating in Ontario for eighty or more years since
20 electricity generation at Niagara Falls was first
21 brooded, and imports of coal from Pennsylvania, and the
22 monopoly control of some of the importers, the arrival
23 of natural gas in Ontario.

24 The question of what is the right thing
25 to do and what is the best fuel to use has always been

1 a matter of public policy and it has been a hot issue
2 sometimes and it is again.

3 MS. FRASER: A. I would just like to add
4 that we had been in discussions at the staff level with
5 the Ministry of Energy, putting that question to them
6 as a public policy question and one of the responses to
7 a more official issue that we raised with respect to
8 non-profit housing was to ban the use of electricity
9 for space and water heating for non-profit housing
10 where gas was available and that was earlier in March
11 of this year, so I don't think the June 5th
12 announcement was any surprise, at all.

13 Q. Were you involved in the decision?
14 Was Ontario Hydro involved in the decision? You said
15 it's not a surprise. Were you involved in the
16 decision?

17 MR. B. CAMPBELL: Are we talking about
18 the non-profit housing decision?

19 MS. OMATSU: Q. No, no. In the fuel
20 switching to gas, were you consulted or was Ontario
21 Hydro --

22 MS. FRASER: A. We certainly had various
23 discussions with them at various times and the fact
24 that there was a restriction in the Power Corporation
25 Act as it stood was something that we pointed out to

1 them.

2 Q. From the material that you filed with
3 us in Exhibit 3, which is page 29 and 30 of my exhibit,
4 you described - this was I guess back in 1989 - that
5 there were problems with the supply of gas, that it was
6 a depletable resource, the prices were volatile and
7 uncertain. Have you changed your opinion of this
8 today?

9 MR. BURKE: A. No.

10 Q. And, Mr. Burke, in your testimony,
11 which is page 31 of my exhibit, lines 1 to 13 and in
12 particular at lines 9 to 11, you expressed the concern
13 that if the forecast was incorrect, you would have a
14 lot of customers on gas that would later like to switch
15 to something else. Is that still a concern of yours?

16 A. Well, I think that as long as it is
17 clear in the context that the forecast proving to be
18 incorrect means that the price of gas is sufficiently
19 high that people find it uneconomic to continue using
20 it, which I think was the context higher up, yes.

21 Q. Was the price of gas higher in the
22 early '80s than it is today?

23 A. Yes.

24 Q. And can you tell us why the price
25 fell in the mid-'80s?

1 A. Well, two things happened. In 1986,
2 the first part of the year, the price of oil collapsed
3 in world markets. The price of gas is related to the
4 price of oil. They compete in certain market segments
5 quite closely, and the price of gas fell with the price
6 of oil on the world markets.

7 In Canada, we had just moved to a
8 situation where the price of oil was being priced at
9 world prices and the price of natural gas was in the
10 process of being deregulated and, in fact, as it turned
11 out, the price of oil deregulated at the time it fell
12 on world markets and shortly thereafter, the price of
13 gas fell with it.

14 In fact, the surplus in North America has
15 been much larger than the surplus of oil globally and
16 the price of gas has fallen much further relatively
17 than the price of oil since the early 1980s.

18 The fact that it has fallen quite
19 substantially does not mean that it could not rise very
20 rapidly and some point in the future, should the market
21 tighten.

22 In fact, the same issues arise in
23 reverse; that is, because it is a continental market as
24 opposed to a global market, you might find yourself in
25 a situation of supply being restricted and creating

1 price pressures in North America.

2 In the price forecast we have, which is
3 in the Energy Price Trends Report - I believe that is
4 Exhibit 14 - these issues are laid out and the
5 rationale behind our median gas price forecast is
6 given, but I also believe there are range forecasts, as
7 well.

8 Q. I understood that the deregulation of
9 gas in the mid-'80s by the federal government was
10 largely responsible for the decline in that the twenty
11 five-year reserves were kept underground for Canadian
12 future use was allowed to be sold on the open market,
13 and as a result of that, there was this huge amount of
14 gas that could be easily sold. Is that correct?

15 A. I do not believe that in itself was a
16 major factor. I think the most important element was
17 the market conditions in the North American gas market.

18 Q. This discussion leads me to raise a
19 concern that I had.

20 Ms. Fraser, on page 32 of my exhibit in
21 lines 16 to 19, you basically have said that the
22 government was going to be a major player in the
23 appropriate fuel choice and that this is government
24 policy. Is this correct? Is that your understanding?

25 MS. FRASER: A. Yes. That is correct.

1 [12:30 p.m.] MR. B. CAMPBELL: I think it was.

2 MS. OMATSU: Q. Well, perhaps you could
3 tell me how your demand management strategy fits into
4 this strategy.

5 MR. WILSON: A. Broadly speaking there
6 is a provincial energy policy which favours
7 conservation in its traditional definition, efficient
8 use of all fuels in all sectors including
9 transportation, the one which we have relatively little
10 impact on.

11 Within that umbrella and also subject to
12 the Act which defines our business, which explicitly
13 states that one of our purposes of existence is to
14 provide energy conservation services, we have
15 structured our strategy and our programs within that
16 broad umbrella to promote the efficient use of
17 electricity.

18 Q. If you had such concerns and still
19 continue to have such concerns about natural gas for
20 the purposes of fuel switching, obviously the
21 government has ignored them in passing --

22 A. To the best of my knowledge, the
23 provincial energy policy is silent on the appropriate
24 fuel choice or fuel selection.

25 Q. That's true.

1 A. And while we have asked -- there is
2 draft legislation which encourages us to get active in
3 promoting fuel switching. And we have written to the
4 provincial government, the acting deputy Minister of
5 Energy, Mr. Davies, and asked a number of questions
6 that would give us some guidance. And the reply has
7 been to set up a consultative relationship to resolve
8 these issues, and that process is just getting going.

9 Q. Yes, the section that you refer to,
10 which is page 28 of my exhibit, 4(3), the fuel
11 switching conversion is silent as to the form of energy
12 that we would switch to. And I had assumed because of
13 Ontario Hydro's concerns about gas that this was, fuel
14 switching to gas had been contrary to your
15 recommendations, given your concerns that you still
16 maintain today.

17 A. I think that's not a correct
18 conclusion.

19 Q. That's not correct?

20 A. No, there is uncertainty in forecasts
21 of all kinds, and natural gas and oil are subject to --
22 you know, we have seen wide variations in prices of
23 both of those fuels over the last 20 years, really
24 dramatic changes.

25 Electricity has been more stable in real

1 terms than either of those alternatives. And as we
2 move into this era where we put programs together to
3 encourage people to switch from one fuel to another, we
4 want our programs and the government's direction to be
5 cognizant of the fact that there is volatility in these
6 prices; and people switching from electricity to say
7 natural gas or some other fuel might regret that
8 decision five years later, as possibly people who
9 switched from oil in the early 80s to electricity may
10 now be regretting the decision they took to switch to
11 electricity. We were acting under a federal program
12 of off oil. So, it's a concern but it's not an
13 impediment.

14 Q. My observation has been that the fuel
15 switching came as somewhat of a surprise in that you
16 were unable to explain to us some of the programs that
17 you intend to put forward and explain how the budget
18 went from 3.3 billion to 6 billion in answering the
19 ONGA lawyer's cross-examination.

20 Just this week, the announcement of your
21 chairman about the increase of 1,000 megawatts of NUGs,
22 there seemed to be a sense to me that there was a lack
23 in co-ordination in terms of energy policy and energy
24 conservation between perhaps yourself and the
25 government.

1 MR. BURKE: A. Well, I don't know
2 whether I should say this. But, at this point our
3 chairman is someone who is quite familiar with the
4 Ministry of Energy's positions, given his previous
5 role, so I presume there is reasonably good information
6 flow at this point.

7 Probably you are correct that a lot of
8 these decisions have been made recently and that's the
9 cause for why we are reacting to these decisions.

10 Q. And do you feel that the switch to
11 gas is against your recommendations?

12 A. No, not at all. All we have said is
13 that there is a risk. And in choosing either gas or
14 oil for off electricity substitution, we are seeking
15 government guidance to essentially determine who takes
16 the risk. It may influence the success of these
17 programs.

18 Q. So, are you assuring me that there is
19 a co-ordinated long-term Ontario energy and
20 conservation strategy that Ontario Hydro is an integral
21 part of?

22 A. My perception of that is there was a
23 change in government last fall and that Ontario energy
24 policy is evolving rapidly at this point and that we
25 are in the middle of it right now.

1 Q. I am not sure if that is reassuring
2 or not.

3 My fourth point has to do with the
4 ethical underpinnings of demand management. These are
5 on the order of "have you stopped beating your wife"
6 questions, I suppose. But one assumes Ontario Hydro is
7 a responsible corporate citizen who strives to operate
8 ethically.

9 MS. FRASER: A. Yes, we strive to be a
10 good corporate citizen. That is in our mission
11 statement.

12 Q. And in reading your testimony,
13 certain principles that you seem to hold dear seem to
14 come forward; namely, one that rates reflect costs.

15 MR. HARPER: A. Yes, that's correct.

16 Q. And that the more you use if the unit
17 price is less, then you pay less, even using more
18 electricity.

19 A. Sorry, when you say rates reflect
20 costs, there are certain costs that are fixed and
21 certain costs that vary with the level of consumption.
22 The intent is to make sure that when you are charging
23 customers rates, you capture and recover those costs
24 appropriately.

25 Q. What that has led you to is to charge

1 large consumers less because it costs you less to
2 provide a large consumer with the electricity; is that
3 not correct? I can refer you to where I believe you
4 said that. I am not sure if it is yourself, but
5 someone said that.

6 A. I think the primary reason we charge
7 large consumers less is the fact that - and I assume
8 you are referring to large industries - is those
9 companies typically take power at 230 or 115 kV. They
10 own their own transformation facilities. They own
11 their own distribution facilities that distribute that
12 power within the plant.

13 So, the cost of us serving them is
14 significantly less than it is in providing power
15 between ourselves and the municipal utility to, say, a
16 residential customer where between us and the utilities
17 we have to provide all that transformation and
18 distribution facility as well.

19 Q. Another principle I believe you have
20 enunciated is that the user should pay and you were
21 against free riders; is that correct?

22 MS. FRASER: A. Well, those are two
23 separate kinds of issues. It is not that we are
24 against free riders. It is just that we try to design
25 our programs to be cost-effective and that would

1 include the minimizing of paying people who would have
2 done something anyway.

3 I am not exactly sure what principle you
4 are referring to in terms of the user pay one.

5 Q. It was tied into the free riders,
6 that you didn't want people to benefit.

7 A. This is in terms of providing
8 incentives that if a customer received a substantial
9 portion of the benefit they should pay a substantial
10 portion of the cost?

11 Q. Right.

12 A. Yes. That's a principle that guides
13 our overall demand management program and where it is
14 necessary to deviate from that one we do in order to
15 achieve a high enough penetration in our programs.

16 Q. Do you also support the principle
17 that the pollutor should pay?

18 MR. WILSON: A. I guess it really has
19 nothing to do with demand management programs. I have
20 got a personal opinion but it has not got much to do
21 with my professional --

22 Q. Is there an Ontario Hydro position on
23 this, not your own personal position?

24 MR. B. CAMPBELL: On pollutor...?

25 MS. OMATSU: Pays, should pay.

1 We are talking about the user pays, no
2 free riders.

3 MR. B. CAMPBELL: Well, yes, in the sense
4 that Ontario Hydro bears and passes on to electricity
5 consumers the costs of all of the activities that it
6 undertakes to comply with regulations, pollution
7 abatement, all of those things, yes, they are all
8 included in Ontario Hydro's costs. And to be more
9 accurate about it, borne by the people who pay
10 electricity bills.

11 MS. OMATSU: So, I assume you are saying
12 that Ontario Hydro supports the concept of the pollutor
13 pays in that it passes on these costs to the ultimate
14 consumer?

15 MR. B. CAMPBELL: I'm not sure this panel
16 is the right panel. I think if by what you mean by
17 that is what I have tried to explain Ontario Hydro's
18 position as being, that's fine. I wouldn't take it any
19 farther than that.

20 MS. OMATSU: Q. The kinds of ethical
21 considerations that we have discussed, are they used by
22 Ontario Hydro in reaching its corporate decisions,
23 these concepts of equity and fairness in a sense?

24 MS. FRASER: A. Well, the demand/supply
25 planning strategy which enunciates the principles which

1 govern the Demand/Supply Plan are outlined in Appendix
2 4 of Exhibit 3. I think Mr. Shalaby talked in detail
3 how the overall plan reflected those principles, so to
4 that extent --

5 Q. The principles of equity and
6 fairness.

7 A. Yes.

8 Q. We have talked about this concept of
9 the free riders. My clients talk about the concept of
10 the hit-and-run driver and they feel in some ways they
11 are indeed the victim of the hit-and-run driver.

12 THE CHAIRMAN: Driver or rider?

13 MS. OMATSU: Driver, sorry.

14 THE CHAIRMAN: Driver?

15 MS. OMATSU: Yes.

16 Q. If aboriginal people were able to
17 convince Ontario Hydro, for example, that the impact of
18 new generation would result in great human suffering
19 for them, such that it would be unethical to ask one
20 group to pay such a high price, would there be a demand
21 management response to this, such as encouraging
22 greater conservation?

23 MR. SHALABY: A. Is what you are saying
24 is that some of the supply projects will be found
25 unacceptable?

1 Q. Perhaps. What were you thinking, Mr.
2 Shalaby?

3 A. I am asking you what you are
4 thinking.

5 If some of the supply projects are found
6 to be unacceptable, then other parts of the plan will
7 be adjusted, and some of that adjustment could well be
8 an increase in demand management.

9 Q. Well, I guess what I was trying to
10 see is would a plan ever be found unacceptable because
11 it was unethical?

12 A. I don't know whether you mean a plan
13 entirely is unacceptable or a component or a project.
14 within the plan is found to be --

15 Q. Let's say any part of a plan.

16 A. If we don't gain approvals for some
17 parts of our plan, as I say, we will have to adjust,
18 and some of that adjustment could well be an increase
19 in demand management.

20 Q. Well, using these concepts of
21 fairness and equity as a kind of corporate ideology,
22 are they ever used in evaluating a plan.

23
24
25 ...

1 [12:45 p.m.] A. Well, there are principles, as
2 referred to, that we put clearly on paper as to what
3 guides us in formulating and evaluating plans, and
4 certainly equity and fairness is a concept that
5 permeates through the strategy elements that we put
6 forth, yes.

7 MR. WILSON: A. I think we have
8 described our desire to provide programs across a whole
9 wide range of people's needs and opportunities even
10 though some of those are relatively expensive compared
11 to others. And we have been accused repeatedly of
12 wasting or throwing money away in the residential
13 sector where it clearly could be better spent and spent
14 with greater affect, a lower total cost and all the
15 rest of it, in the industrial and commercial sectors.
16 We have maintained again and again that that fails to
17 meet two of the principles that we hold dear. One is
18 that we want to provide opportunities for all consumers
19 to conserve and to make more efficient use of energy,
20 and the second is that we want to get all the economic
21 efficiency improvements that we can get and we can't
22 leave out economic opportunities. So, both of those
23 principles drive our choices.

24 There are always compromises when one is
25 confronted with choices and equity and fairness are

1 high on the list.

2 Q. Moving to my last questions. On page
3 34 of my exhibit -- no, I'm sorry, wrong page. Page 35
4 of my exhibit, Mr. Burke, you spoke about this concept
5 of backcasting. I suppose that's contrasting it to
6 forecasting where you forecast a demand, this I assume
7 meant you would say, 2014, this is where we want to be,
8 let's backcast to 1991 and this is the kind of demand
9 management strategy we should have to get to stay in
10 place by 2014; is that correct? Is that what you are
11 talking about?

12 MR. BURKE: A. That's the goal of
13 backcasting. I have debated whether it's achievable.

14 Q. Is it possible that you could
15 backcast a scenario for Hydro and for us that would
16 involve no major growth, no major demand through
17 conservation and other technologies?

18 A. Well, essentially, given that the
19 basic load forecast is a proper forecast, one can
20 calculate what you have to do in order to suppress
21 demand one way or another to the point where there was
22 no growth, and there are many ways of doing that.

23 Q. So, it would be possible for you to
24 backcast, if you were asked to project a kind of
25 no-growth scenario, you could do such a thing?

1 A. One could work out what it would take
2 in terms of demand reduction or NUGs, or it depends
3 what options you allow.

4 I guess the important point to me is that
5 the backcasting occurs -- or forecasting would have to
6 be... Rather, as long as the basic load forecast
7 remained the forecast, essentially all we are doing in
8 backcasting is dealing with ways of filling the jaws
9 diagram that Hydro has submitted as the gap between
10 supply and demand, and that's something that's
11 tractable. As long as we are only talking about that
12 portion of the exercise, yes, I think there are ways it
13 could be done.

14 Q. I put it to you from my client's
15 perspective, a scenario of no growth would be the
16 ethical and fair scenario, and I wonder if you have
17 backcast such a scenario?

18 MS. FRASER: A. I would just like to
19 point out, I believe Mr. Burke was talking about it
20 from a forecasting/backcasting point of view, just
21 because you can draw those lines on a piece of paper
22 doesn't mean it's realistic and achievable to go out
23 and do it. And the plans that we have put forward in
24 the Demand/Supply Plan were realistic and achievable
25 under the constraints that were present at the time.

1 Some of those constraints have changed and that's what
2 is represented in Exhibits 258 and 259, fuel switching
3 and more aggressive standards, and as result of that we
4 have an increased our targets to 5,200 megawatts for
5 demand management.

6 Whether you could fill all of the jaws
7 diagram -- I think our evidence is such that you can't
8 do it, you could draw the lines on the paper, but
9 whether you could actually make it in the marketplace,
10 I would say our current estimation in terms of what is
11 realistic and achievable by the year 2000 is that you
12 cannot close that gap only using demand management
13 techniques.

14 Q. If we stayed on the Jane Fonda diet
15 and did not move to the Tommy Lasorda diet?

16 MR. BURKE: A. Well, I think there is a
17 range, as I said, of options, and certainly we gave
18 five scenarios in Exhibit 258, and to get some of the
19 higher results in that requires extensive government
20 mandation and the imposition of standards. That is one
21 way.

22 Another way is through very high prices
23 of electricity, and that would involve a policy change
24 because that would involve prices exceeding cost for
25 quite a period of time.

1 So, there are a lot of policy issues that
2 would be entailed if one wished to go beyond what Hydro
3 expects it can achieve through programs and incentives,
4 and in that sense it's back to a government policy
5 question as to whether you wish to pursue things
6 further than the sorts of things that Hydro has within
7 its power to achieve.

8 Q. So, under Hydro's present mandate we
9 could not see a no or low growth scenario?

10 MR. SHALABY: A. Mind you, the plan
11 shows a band of demand forecasts, one of them is a low
12 load growth which is pretty close to no growth if you
13 look at the lower bound of the band of growth.

14 So, we do foresee a possibility of a very
15 moderate growth and our plans have showed how the
16 approvals and things that we are asking for will adjust
17 to a lower load growth.

18 So, when you say that Hydro cannot
19 foresee, we do foresee it, we give it a a probability
20 and we have presented it in our evidence.

21 Q. You will have to forgive me, which
22 plan is that?

23 A. This is the band of load growth
24 starting in Chapter 3 and beyond that.

25 Q. Is this reflected in one of your

1 plans? I'm sorry, I don't recall.

2 A. All of our plans are designed to
3 respond to higher load growth, or lower load growth or
4 median low growth. So all of our plans are designed to
5 respond to any future outcome.

6 Q. Is there is a plan that predicts a
7 no-growth scenario?

8 A. Well, it is not plan that would
9 predict that. The load growth would be low and Plan 15
10 will respond in the following way if load growth was
11 low, and we assign a probability for that low load
12 growth to occur.

13 I just don't want to leave you with the
14 impression that we never ever thought of a very low
15 load growth situation. It is part of the documents
16 that we presented.

17 MR. WILSON: A. I will just have to leap
18 in.

19 That low load growth path is driven by a
20 set of circumstances that I think see a low population
21 growth, a prolonged depression in Ontario, or very low
22 economic growth, per capita income not going anywhere.
23 It's the kind of future that Ontario might have. Some
24 might regard that has a desirable future, but that's
25 not the one we are forecasting is the most likely.

1 So, we don't have a plan to make that
2 happen. I think things could turn out that way. We
3 have no plan to make it happen.

4 Q. Are you saying that conservation in
5 that kind of economic scenario are tied together?

6 MR. BURKE: A. In Panel 1 we discussed
7 the uncertainty band surrounding the load forecast.
8 What these gentlemen are describing for you is the
9 lower bound of the 80 per cent band, a 10 per cent
10 scenario, it's a path through time that had been 10 per
11 cent probability or less of occurring, and there are
12 many ways that it could come about.

13 But, essentially, it's not, as Mr. Wilson
14 is saying, our plan to bring about low growth in
15 Ontario. It could happen through a combination of
16 circumstances in the drivers of the fundamental demands
17 for electricity, low economic growth and so on.

18 Conservation is conceivably an element in
19 that. If there was a massive change in lifestyle in
20 Ontario, one could conceive of having economic growth
21 that's pretty good, as in the median, and companies by
22 themselves and individuals by themselves lowering the
23 intensity of electricities, it is possible. It's not
24 the thing that we consider the most likely. So, that
25 is one of the ways you could bring about the low growth

1 scenario.

2 I think what we have had is a little bit
3 of a digression here in the sense that I would prefer
4 still, while it's a band in existence and planning
5 should reflect the uncertainty of the band, that if you
6 were to be planning for zero growth somehow, how could
7 you achieve zero growth, that one would be looking for
8 strategies that could bring the requirement for new
9 supply to zero from the median basic load forecast. It
10 includes all of the things that we have already
11 subtracted from the basic load forecast on the way to
12 driving the primary load forecast, plus extra measures,
13 and those extra measures would probably involve
14 government policy changes because in each case we have
15 pursued the measures that we have available to us to
16 the extent feasible under the current planning
17 framework.

18 MS. OMATSU: Thank you. Those are all my
19 questions, Mr. Chairman.

20 THE CHAIRMAN: Thank you.

21 DR. CONNELL: I would like to just put to
22 the panel, I think this counts on perhaps others appear
23 to have in mind the possibility of some constraint on
24 consumer choice. We may well hear much more about that
25 in direct evidence from the parties. I wonder, I think

1 it would be worth asking this panel whether you have
2 knowledge of other jurisdictions, whether there is any
3 one that stands out particularly in that respect, that
4 is the degree to which consumer choice and the use of
5 electric power has been constrained. I am not really
6 referring to totalitarian countries but others, and I
7 would be interested to know amongst those that are the
8 most rigorous in this respect, have they also acted to
9 constrain the use of energy in other forums.

10 MS. FRASER: I would hazard a guess that
11 California is probably the most stringent in terms of
12 both standards and specifications with respect to fuel
13 choices. There is a whole myriad of different levels
14 from state regulation to municipal regulation to
15 utility programs which affect the whole regulatory
16 environment for energy use in California, including
17 different pricing strategies. For example, in some
18 jurisdictions in California you cannot sell your house
19 that has less than a certain energy efficiency rating
20 to it, and those are home energy rating programs, and
21 in order to get the okay to transfer the title you have
22 to bring your home up to a certain level of energy
23 efficiency. Those sorts of things are in place in some
24 jurisdictions.

25 I believe there are a number of

1 restrictions with respect to choice of fuel for
2 barbecuing in the Los Angeles basin and things of that
3 sort.

4 To my knowledge, though, there is no sort
5 of comprehensive policy statement with respect to
6 appropriate fuel choice or restrictions with respect to
7 a particular fuel use. It's more the economics and
8 programs that are in place and to some degree specific
9 regulations which really affect the way in which
10 decisions get made about energy efficiency and the
11 timing of those decisions.

12 MR. BURKE: In the context we have been
13 using this morning, my sense is that California is
14 still on the Jane Fonda diet, even if a lot of that is
15 through standards and building codes and so on, which
16 may exceed the level of regulation we have in Ontario.
17 But it's still not restricting the quality of the
18 services people can seek to enjoy; it is merely saying
19 that if you wish to have those services, you must do
20 them efficiently.

21 I don't know of any jurisdiction in North
22 America that mandates changes in the quality of the
23 service that people can demand from their electric
24 utility. I am not sure for Europe, but my sense is
25 that rationing of power use through price and standards

1 is typically the way it's done, but again not
2 specifically limiting the amount of energy that can be
3 used in a particular application in a sort of arbitrary
4 way. That's my understanding.

5 DR. CONNELL: Thank you.

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1 [1:00 p.m.] THE CHAIRMAN: Do you have any further
2 questions arising out of that?

3 MS. OMATSU: No, thank you.

4 THE CHAIRMAN: Mr. Rosenberg, you are
5 ready to go next?

6 MR. ROSENBERG: Yes.

7 THE CHAIRMAN: You will go at 2:30. We
8 will adjourn now until 2:30.

9 THE REGISTRAR: The hearing will adjourn
10 until 2:30.

11 ---Luncheon recess at 1:02 p.m.

12 ---On resuming at 2:35 p.m.

13 THE REGISTRAR: Please come to order.
14 This hearing is again in session. Be seated, please.

15 THE CHAIRMAN: Mr. Campbell?

16 MR. B. CAMPBELL: Mr. Chairman, I expect
17 Ms. Formusa will be joining me later this afternoon. I
18 have to leave probably just a little after three,
19 transportation being what it is, to attend to another
20 obligation this afternoon, so that if you see Ms.
21 Formusa sneak in and me sneak out, if that is not
22 objectionable to the Board, we propose to do that. It
23 will probably be some time before the afternoon break.

24 THE CHAIRMAN: Thank you. Mr. Rosenberg?

25 MR. ROSENBERG: Thank you, Mr. Chairman.

1 A few preliminary matters. The first is to advise you
2 that I think I will take about two days for my
3 cross-examination.

4 The second is a logistical problem
5 arising from that two-day figure. Tomorrow afternoon,
6 I may request to leave a little earlier, like around
7 the break because the Jewish holiday starts tomorrow
8 evening. That poses a problem if I am not finished.
9 Somebody, another intervenor might be available on
10 Wednesday when I won't be here to cross-examine and I
11 do not have a problem. I think the proper approach
12 would be if I have to break, then the next intervenor
13 or intervenors go until they finish, but I just raise
14 that now.

15 THE CHAIRMAN: Have you told Ms. Morrison
16 about this?

17 MR. ROSENBERG: Yes, I have.

18 THE CHAIRMAN: And she is plugged in, is
19 she? And, Mr. Rodger, I think you have agreed to step
20 into the breach; is that correct?

21 MR. RODGER: Yes. I will be able to
22 start on Wednesday, if need be.

23 MR. ROSENBERG: The reason I raise the
24 break issue, it's a question of transportation. I do
25 have to travel a bit tomorrow and if the panel wishes

1 to go after the break, let's say after three-thirty,
2 four, all the way to five, then I would suggest that
3 somebody could start after the break tomorrow, if I am
4 not finished.

5 THE CHAIRMAN: Perhaps you can discuss
6 that.

7 MS. SPOEL: Mr. Chairman, I think I am
8 scheduled to start after Consumers' Association.
9 Wednesday is a problem for me. I have to be in Supreme
10 Court, so perhaps if he is finishing early tomorrow
11 afternoon, I wouldn't imagine I would take more than an
12 hour, it would fill in that particular spot which would
13 suit my schedule very well, as well.

14 THE CHAIRMAN: Does that suit you, Mr.
15 Rodger?

16 MR. RODGER: I didn't hear all of my
17 friend's comments. I would just ask, if I start on
18 Wednesday, I think I will be about two days and I was
19 wondering whether if I start on Wednesday, whether I
20 can go right through. That would be easier for me,
21 with my consultants.

22 THE CHAIRMAN: That is okay, Mr.
23 Rosenberg?

24 MR. ROSENBERG: Yes.

25 THE CHAIRMAN: Okay. So, you represent

1 the Voice of Women; is that correct?

2 MS. SPOEL: The Voice of Women, yes.

3 THE CHAIRMAN: Yes. So, let's say right
4 now, we will stop at three-fifteen.

5 MR. ROSENBERG: (Nodding head)

6 THE CHAIRMAN: And then you can start at
7 three-thirty tomorrow afternoon.

8 MS. SPOEL: Yes. And I should be
9 finished tomorrow afternoon.

10 THE CHAIRMAN: Well, we will finish you
11 tomorrow afternoon, come what may.

12 MS. SPOEL: Thank you.

13 MR. B. CAMPBELL: That is a rash promise,
14 Mr. Chairman. (laughter)

15 THE CHAIRMAN: Then, Mr. Rodger, you will
16 be ready for Wednesday morning. Then when you are
17 finished, Mr. Rosenberg, if he is not then finished,
18 will continue.

19 MR. ROSENBERG: That is fine. I am
20 available on Monday and Tuesday of next week.

21 THE CHAIRMAN: Well, let's not worry any
22 more about it.

23 MS. MORRISON: Excuse me, Mr. Chairman.
24 Someone from SESCOI is planning to be here Wednesday
25 from Ottawa, so I will speak to Mr. Rodger about

1 switching that around possibly.

2 THE CHAIRMAN: I knew I shouldn't
3 interfere in this.

4 MR. ROSENBERG: The other brief matters
5 are, we have two exhibits which we will be putting in
6 during the course of the argument or during the course
7 of the cross-examination and - I hope it is not an
8 argument - and --

9 MR. B. CAMPBELL: Freudian slip.

10 THE CHAIRMAN: Sometimes hard to tell the
11 difference.

12 MR. ROSENBERG: Subtle but important
13 difference.

14 THE REGISTRAR: That will be the first
15 one No. 298, Mr. Chairman.

16 MR. ROSENBERG: Exhibit 298 will be our
17 multi-tabbed exhibit of material.

18 THE CHAIRMAN: That will be No. 298.

19 ---EXHIBIT NO. 298: Consumers' Association background
20 material for cross-examination.

21 MR. ROSENBERG: And we have a second much
22 smaller exhibit, three figures.

23 THE REGISTRAR: 299.

24 ---EXHIBIT NO. 299: Hamilton Hydro's 1989 Residential
25 Rate.

1 MR. ROSENBERG: Very good. Now, just
2 before I begin, I was asked by an intervenor, Mr. Poch
3 for the City of Toronto, at the end of the day, he
4 asked me to just ask one more question about a matter
5 arising from his cross-examination, which I will do now
6 and then move right into my cross-examination.

7 CROSS-EXAMINATION BY MR. ROSENBERG:

8 Q. This goes back to the question, and
9 whoever is the appropriate person on the panel, please
10 answer this: Dealing with one building, if there were
11 two different alternatives or two projects available
12 for retrofitting a building, one which passed Ontario
13 Hydro's avoided cost test; for example, something to do
14 with the windows, and a second option that didn't pass
15 the Ontario Hydro avoided cost test --

16 THE CHAIRMAN: You mean by the total
17 customer cost test; is that what you mean?

18 MR. ROSENBERG: That is correct.

19 Q. Would it be possible within that one
20 building to average the two together to obtain a
21 project that was feasible and provided, for example, 2
22 megawatts of savings, instead of 1 megawatt of saving
23 if only the first option which did pass the test was
24 chosen?

25 MS. FRASER: A. I believe I was

1 discussing this with Mr. Poch last week and what I
2 indicated there was we would take a total building
3 approach and simulate all of the options together and
4 if all of those options together passed the total
5 customer cost test, it would be eligible under savings
6 by design.

7 Q. Very good. Moving on to the
8 Consumers' Association cross, I would like to start
9 with a corporate planning concept dealing with
10 strategic planning.

11 I believe this will be for Mr. Wilson,
12 but once again, if it is not, please, somebody else may
13 answer it.

14 I take it that from a corporate planning
15 perspective, Mr. Wilson, that is important to have in
16 place management systems in an organization as large as
17 Hydro to set first a mission or goal for that
18 organization; second, to have objectives which clearly
19 define and further the goal; and finally, an action
20 plan to carry out those objectives.

21 Would you agree that that is generally or
22 simplistically, a model for corporate planning that
23 Hydro has adopted?

24 MR. WILSON: A. Yes, I do.

25 Q. And I also take it that part of the

1 action plan would be to continually audit the
2 objectives to ensure that the objectives meet and
3 positively reinforce the goal or the mission of Ontario
4 Hydro?

5 A. Yes, I would. "Objective", I would
6 qualify that ever so slightly in that corporate or
7 strategic objectives tend to be expressed in very broad
8 terms, and consequently don't normally require change
9 on a frequent basis.

10 Q. But sometimes they do require a
11 change?

12 A. Yes.

13 Q. As you move down from corporate goal
14 down to action plan, the frequency of change will
15 increase; that is, your corporate goal is not likely to
16 change very often, but your action plan will change
17 quite often?

18 A. Yes.

19 Q. And I also take it then that at
20 program level, you would audit the action plan and its
21 results to ensure it is carrying out or furthering the
22 objections of the organization?

23 A. Yes, I would.

24 Q. And given that Ontario Hydro has such
25 a plan in place, I take it the reason that you do that

1 is to ensure - and here I am going to use colloquial
2 term - that you walk like you talk; that you are
3 actually doing what you say you want to do?

4 A. That is a good test.

5 Q. So that from first principles of
6 strategic planning, you should have a clearly defined
7 goal or mission statement. That is certainly a
8 priority?

9 A. True.

10 Q. It is also important to have
11 objectives which further that goal?

12 A. Yes.

13 Q. And an action plan that carries out
14 the objects and the goals of the organization?

15 A. We are speaking in broad theoretical
16 terms, but yes, I agree with that.

17 Q. I also take it that each of the goals
18 or each of those three factors are independent of one
19 another in the sense that if one -- even though two
20 might be in place and properly positioned so that you
21 have the optimal goal and the optimal objective for the
22 organization, if your action plan isn't good, then the
23 whole process will stumble and maybe even fail?

24 A. I would say the action plan is what
25 matters the most.

1 Q. And the reason for that is, if you do
2 not --

3 A. If you have got the optimal action
4 plan, the rest can be out of date.

5 Q. And you would agree, though, that
6 even if you had the optimal action plan and the optimal
7 objectives, if your goal was not appropriate, that even
8 though you are running are very efficiently, you are
9 not running in the right direction?

10 A. Sure.

11 Q. Now, I would like to turn to Exhibit
12 298 and to Tab 1, page 107.

13 Tab 1, page 107 -- actually, to go back
14 to page 105 which is just the previous page, we have a
15 document entitled Customer Satisfaction Study of
16 Residential Customers: Final Report, and the date of
17 this is March 1991. Are you familiar with this, Mr.
18 Wilson?

19 A. I am in general terms, yes.

20 THE CHAIRMAN: Is this a Hydro document?

21 MR. ROSENBERG: Yes.

22 THE CHAIRMAN: Thank you.

23 MR. ROSENBERG: Q. Page 105. Maybe you
24 could tell us, Mr. Wilson, generally the genesis of
25 this document. I see from page 105, which is just the

1 previous page, it was produced to the Consumers'
2 Association through an interrogatory and it says MR
3 91-19, and it says, "Prepared for: Ontario Hydro" at
4 the bottom of the page, by Canada Market Research.
5 What is this document?

6 MR. WILSON: A. I believe this is one of
7 a series of surveys which we complete basically every
8 year to establish whether or not our projections of our
9 residential customers are developing the way we hope
10 they will.

11 Q. This document was prepared in or
12 about March of 1991?

13 A. The report date is January 1991, so
14 I am assuming the execution of the date, if I take a
15 moment... The survey was executed November of 1990.
16 That is shown on page 109, halfway down the left column
17 or three-quarters of the way down.

18 Q. Yes. I have that date. The date I
19 was referring to was on page 105 and it has at the
20 bottom left-hand corner March of 1991?

21 A. Yes.

22 Q. So, somewhere between November and
23 March, the report was finalized and delivered to Hydro
24 in March of '91?

25 A. Yes. That is right.

1 Q. On page 107 in the left-hand column,
2 the report cites "Ontario Hydro's corporate goal is:"
3 And I quote, "To meet the requirements of the Ontario
4 community for electric service, including the manner of
5 its provision, so as to result in the greatest overall
6 benefit to the community and in the greatest value to
7 the customer for that service over the long term."

8 Now, Mr. Wilson, is that as of March 1991
9 what you understand to be Ontario Hydro's corporate
10 goal?

11 A. Yes, it is.

12 Q. Was that the corporate goal of
13 Ontario Hydro in November/December of 1989, when the
14 DSP was finalized and delivered to the Minister of the
15 Environment?

16 MR. SHALABY: A. No. I believe there
17 have been changes since the development of the
18 Demand/Supply Plan.

19 Q. So, is this -- this goal then was not
20 the same goal that was in place in November-December
21 1989?

22 A. To my recollection, the words "adding
23 greatest value" could either be post the publication of
24 Demand/Supply Plan or concurrent with it, but it is a
25 change from the one previous to that.

1 Q. Well, I would be interested in just
2 obtaining an undertaking to have the corporate goal of
3 Ontario Hydro as of the time that the DSP was finalized
4 and filed with the Ministry of the Environment, if I
5 can have that undertaking.

6 A. It probably is in the Demand/Supply
7 Plan itself somewhere.

8 Q. We have looked and I haven't found it
9 exactly, but if you can find it, then I do not need the
10 undertaking.

11 A. Do you want to take an undertaking
12 for that?

13 Q. Why don't we take an undertaking.

14 THE CHAIRMAN: I am not quite sure about
15 the relevance. Perhaps I am missing something.

16 MR. ROSENBERG: Well, Mr. Chairman, I
17 hope --

18 THE CHAIRMAN: I don't want to interrupt
19 so early, but semantical discussions about words and
20 what one word in one document and another express the
21 same general idea do not really help this panel very
22 much.

23 MR. ROSENBERG: All I would ask for, Mr.
24 Chairman, the only... I was not going to do anything
25 with that at this time. It is really a matter for

1 argument, in my submission, what the corporate goal was
2 in 1989. It seems to have changed in '91.

3 We are going to ask one more question
4 about corporate goals in terms of what they are, and
5 that is what is the corporate goal of Ontario Hydro
6 today?

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1 [12:50 p.m.] And then I think it becomes a question
2 for argument as to the alternatives that Hydro has
3 looked at, whether or not they are in fact walking like
4 they talk now in March of '91 and in November of 1989.

5 THE CHAIRMAN: I understand, Mr. Shalaby,
6 you are prepared to furnish the corporate goal
7 contemporaneously with the filing of the Demand/Supply
8 Plan.

9 MR. SHALABY: I am prepared to do that.
10 I am a bit discouraged that you are not going to do
11 anything with it, but.... (laughter)

12 MR. ROSENBERG: Well, we'll find out.

13 THE CHAIRMAN: You better give that
14 undertaking a number then.

15 THE REGISTRAR: Undertaking No. 267.11.

16 ---UNDERTAKING NO. 267.11: Ontario Hydro to provide
17 the corporate goal as it read at the time
the DSP was produced.

18 MR. ROSENBERG: Q. Now, Mr. Wilson, is
19 the corporate goal that is identified on page 107 of
20 Tab 1 of Exhibit 298 the current or operative goal of
21 Ontario Hydro?

22 MR. WILSON: A. To the best of my
23 knowledge, yes.

24 Q. Now, from the timing of the filing of
25 the DSP until today, it is my understanding from

1 reading the Plan itself, Exhibit 3, and in particular
2 page 1-6, that the top priority of Ontario Hydro, this
3 is Priorities in Planning, page 1-6, says in the first
4 bullet point where it describes the demand/supply
5 planning strategy contains five thrusts:

6 "Ontario Hydro will give top priority
7 to demand management to reduce load
8 growth through electricity use efficiency
9 and load shifting. Demand management
10 options that contribute to low customer
11 cost of electrical service will be
12 aggressively pursued."

13 Now, at the time that the DSP was filed,
14 Mr. Wilson, that was Ontario Hydro's top priority; is
15 that correct?

16 A. Yes.

17 Q. I take it that as of today, September
18 16, 1991, that it is still the top priority of Ontario
19 Hydro?

20 A. Yes, it is.

21 Q. But since the filing of the DSP there
22 have been a number of changes in the Plan, and I just
23 would like to understand them relative to the corporate
24 goal that is set out on page 107.

25 And just to give you a couple of

1 examples, at the time the DSP was filed and certainly
2 at the time this hearing began, Mr. Wilson, the
3 encouragement or promotion of alternative fuel use was
4 not a priority of Ontario Hydro; correct?

5 A. It was part of our demand management
6 program mix. The only distinction is we provided no
7 incentives for fuel switching.

8 Q. And now you have changed your plan to
9 include positive incentives for fuel switching?

10 A. If the draft amendments to the Power
11 Corporation Act are passed as expected, then we will
12 add incentives for fuel switching.

13 Q. If the draft legislative plans are
14 not passed by the legislature?

15 A. Then I presume we will be still bound
16 by the terms of the current Act which could prohibit us
17 from doing that.

18 Q. I see. With respect to rate
19 structure issues and rate design and the residential
20 consumer classes, I take it that at the time of the
21 filing of the DSP that Ontario Hydro took the position
22 that rate structure and design was of little
23 importance; and as of Panel 1 evidence, that in fact
24 Ontario Hydro plans to change their rate design for
25 residential customers from a declining block rate to a

1 straight rate; is that correct?

2 MR. B. CAMPBELL: Could my friend
3 indicate please where he is referring to any submission
4 by Ontario Hydro that rate structure and design is of
5 little importance.

6 MR. ROSENBERG: There are two references,
7 Mr. Campbell, and the panel, and they come out of the
8 intervenor funding process where in a description or a
9 review of the Consumers Association's request for
10 funding and work plans, Ontario Hydro commented as
11 follows regarding the work plan:

12 There is also a question of the
13 relevance with respect to the work
14 proposed by Mr. Gibbons on rate structure
15 reform. Rate changes together with cost
16 allocation issues affecting residential
17 and other customers are regularly
18 reviewed by the Ontario Energy Board.
19 The OEB has rejected the approach
20 proposed by Mr. Gibbons and more recently
21 has supported the adoption of ongoing
22 implementation of time-of-use rates.
23 And then there is a transcript reference.
24 And then in a letter to the Board counsel
25 Mr. Challis, Mr. Campbell said:

1 Given the regular annual review of
2 rates at the OEB and the special
3 attention given to rate structures from
4 time to time in those hearings, Ontario
5 Hydro anticipates that rate structure
6 issues should not occupy any significant
7 time before the main hearing panel.

8 MR. B. CAMPBELL: I think, Mr. Chairman,
9 my submission would be that that is no indication that
10 rate structure matters are of little importance. We
11 did take a position on the funding. I believe funding
12 was granted for these issues, so you can see the weight
13 that has been given to those submissions. And we have,
14 given the interest in this matter in these proceedings,
15 dealt with certain of those issues.

16 I will have submissions to make in
17 argument as to the appropriate treatment of that
18 evidence by this panel.

19 THE CHAIRMAN: Perhaps could we leave it
20 this way, Mr. Rosenberg. Your interest is that at one
21 time they did not propose a declining rate structure
22 and now you are suggesting that they are and perhaps
23 you could frame your questions in that area.

24 MR. ROSENBERG: Yes, Mr. Chairman.

25 Q. Along the lines of the Chairman's

1 suggestion, I take it, Mr. Wilson, at the time the DSP
2 was filed, that a change in rate structure design for
3 residential consumers was not part of the DSP as filed?

4 MR. HARPER: A. That is correct.

5 Q. And that subsequent to that in April
6 of this year, through the interrogatory process and
7 through the testimony of Mr. Burke, we learned that, in
8 fact, Hydro was considering changing the rate design
9 from a declining block rate to a straight line block;
10 is that correct?

11 A. Yes.

12 Q. Now, given that these changes and
13 more that I will get into as our cross-examination
14 develops - we will identify other issues - but I take
15 it that if the corporate goal of Hydro is still the
16 same and can encompass changes in rate design or
17 changes in alternative fuel use policies, that the
18 Hydro corporate goal is flexible and, in fact, can
19 accommodate various situations presented with respect
20 to demand management and supply options.

21 A. Yes, I think that's correct.

22 Q. Now, one of the first areas that I
23 want to look at specifically is penetration rates and
24 customer research data. You told us, and it's in the
25 prefiled material and I believe there is some testimony

1 on this, that the average penetration rate by the year
2 2000 for fuel switching and energy efficiency
3 improvement in the residential market is about 23 per
4 cent.

5 MR. BURKE: A. I think I mentioned that
6 number, yes.

7 Q. And at page 7-16 of Exhibit No. 3,
8 this is the Demand/Supply Plan, it states that -- I
9 will let you turn to that. At the bottom left-hand
10 corner, the paragraph states:

11 "Expected customer uptake is based on
12 Hydro's experience with demand
13 management, as well as an examination of
14 comparable programs undertaken by
15 American electrical utilities."

16 Now, Mr. Burke, is that where the 23 per
17 cent figure comes from, from that process identified at
18 page 7-16?

19 A. Well, I think perhaps the question is
20 best directed to Ms. Fraser and Mr. MacLellan because
21 they are the source of these estimates.

22 Q. Very good. Either Ms. Fraser or Mr.
23 MacLellan.

24 MR. MacLELLAN: A. The 23 per cent is an
25 average, yes, and it is an estimate that we work with

1 Mr. Burke's department on to try and guess for each
2 technology and each program what the penetration rate
3 would be.

4 Q. So the rate is based then on similar
5 programs in other jurisdictions, particularly the U.S.,
6 but also on your own personal judgment and experience
7 as a professional in the Hydro organization.

8 A. Well, it is a little broader than
9 that. When we propose to undertake a program, we don't
10 just don't sit and judge for ourselves what the
11 penetration rate might be. We also talk to industry,
12 talk to utilities, talk to as many people as we can to
13 get the best estimate of penetration rate. And also we
14 undertake consumer research to help us in that regard.

15 Q. We have heard in previous, at least
16 in prefiled material, seen in the prefiled material,
17 some discussion on the record, that Ontario Hydro has
18 very limited experience to date in developing and
19 promoting energy efficiency programs in the residential
20 classes, so you really can't look to past experience,
21 can you, Mr. MacLellan. In fact, what you are looking
22 to is experience in other jurisdictions and a sense of
23 what might happen in Ontario.

24 A. I would say that is reasonable. We
25 now have about two years of experience under our belt,

1 so we are certainly better than we were then, but we
2 rely on other jurisdictions and also people in the
3 retail and manufacturing industries. They are a good
4 judge of what will sell, at what price, at what rate,
5 things like that.

6 Q. So, your experience base starts in
7 let's say 1989. You have two years to call on. Have
8 you noticed any change over the last two years or are
9 you projecting any changes to the penetration rate?

10 MS. FRASER: A. The penetration rates
11 are in detail in Exhibit 25 and have been updated in
12 Exhibit 76. And I think, as our testimony indicated in
13 discussions on penetration rates, that were we not
14 sitting here at this table right now, we would be in
15 the middle of updating them again for this year.

16 Every year as we learn more, we get more
17 information, we do not pretend that we are or that
18 anybody has the ultimate information on penetration
19 rates because this is a brand new business for us to be
20 in.

21 Q. And I take it in terms of
22 quantitative information, Ms. Fraser, the jurisdiction
23 you look to for the best evidence is the United States?

24 A. Yes, but there is a lot of
25 difficulties in translating the experience there to the

1 Ontario experience. Difference between municipal and
2 wholesale utilities and other such things.

3 Q. There is also a difference between
4 U.S. and Canadian utilities in the sense that United
5 States utilities are shareholder owned, whereas Ontario
6 Hydro is much more a creature of public government and
7 Crown corporation?

8 A. Well, there is a whole raft of
9 different ownership types in the U.S., correct.

10 Q. Would you agree with the fact that
11 Ontario Hydro is in fact not shareholder owned, private
12 corporation, that it would affect -- let me put it
13 another way.

14 Would you agree with me that the degree
15 of penetration experienced in the United States might
16 be in part due to the impact of those utilities being
17 private and shareholder owned and thus there would be a
18 different experience in the United States than one that
19 would be found in Ontario?

20 A. I certainly agree that they would be
21 different and I think Mr. Shalaby mentioned that one of
22 the differences there would be the added complication
23 with respect to the additional perspective that you
24 would have to take into play. We do the total customer
25 cost test. They would have to look at the impact on

1 shareholders.

2 I think one of the big changes in and
3 certainly experts from say, Lawrence Berkeley lab or
4 whatever would cite the fact that utilities have been
5 given shareholder incentives or utility incentives
6 which can be passed onto shareholders has made a big
7 difference in their degree of involvement in demand
8 management programs in the past year, and we don't deal
9 with that extra complication with respect to our
10 cost/benefit analysis. I don't think it affects
11 penetration rates all that much.

12 Q. Has Ontario Hydro done any studies
13 that analyzed the extent to which this added dimension
14 of private ownership effects the penetration rates
15 American utilities have achieved with their
16 conservation programs?

17 A. Aside from the study which I believe
18 is Exhibit 24, which compares both some investor-owned
19 and some public-owned U.S. utilities to ours, we
20 haven't done any study of that sort.

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25 ...

1 [3:05 p.m.] Q. So, I take it then before you pin
2 yourself on one penetration rate or range penetration
3 rates, that you would have to understand the impact of
4 a private share ownership of a utility on their ability
5 to achieve penetration rates.

6 A. No, I think I said the opposite of
7 that, that it was that complication in determining cost
8 benefit analysis, but it was not necessarily a factor
9 with respect to penetration,

10 MR. WILSON: A. Could I just add to
11 that, in exhibit - I don't know the number - it's the
12 Registry of Customer Research, which was provided in
13 response to Interrogatory 4.12.73, there are a number
14 of studies cited, three in particular to our review and
15 assessment of North American utility experience in the
16 commercial, residential and industrial sectors. That
17 was not a case of a broad brush average comparison, but
18 rather the examination of the details of some of the
19 best programs in each area, so that the question of
20 ownership really doesn't enter into that kind of
21 comparison.

22 Q. Let's look at it in terms of
23 alternative fuel use. Would you agree that a
24 shareholder-owned utility in the United States would
25 have a greater vested interest in maintaining its

1 electricity market share than does Ontario Hydro, for
2 example, being a public company?

3 A. Well, there are a whole lot of
4 American utilities that sell gas and electricity, so
5 it's a little hard to say.

6 Q. What if they were just an electricity
7 utility, you would expect from first principles, would
8 you not, Mr. Wilson, that an American utility would not
9 be, if they were just an electricity utility, not be
10 pursuing an alternative fuel use policy.

11 A. Well, I really can't speculate on
12 that. It depends very much on the incentives that the
13 regulatory process allows them.

14 Q. If there were no incentives?

15 A. I would assume they would be most
16 reluctant. But in the past they have been reluctant to
17 promote conservation in electrical efficiency very
18 vigorously.

19 Q. Are you aware of any U.S. utilities
20 that have pursued an aggressive fuel substitution
21 policy?

22 A. I am not, no.

23 Q. Are you, Ms. Fraser?

24 MS. FRASER: A. Burlington, Vermont, is
25 currently doing one. I think the latest issue of the

1 association demand side professional literature has a
2 whole debate on this whole fuel switching issue, is
3 fuel switching a valid demand management option, and
4 the range of opinion is -- I wouldn't even say there is
5 two sides to it; there is probably about as many sides
6 as there are different commentators. So, it's a wide
7 ranging in which there is certainly no unified view
8 with respect to all or any U.S. utility.

9 Q. What I would like to understand is
10 why the same penetration rate of 23 per cent was chosen
11 for fuel switching programs as for electrical
12 efficiency programs? It's both 23 per cent. Wouldn't
13 you expect there to be a difference between the two?

14 MR. BURKE: A. Well, maybe there would
15 be, but when we did the study we had no real analysis
16 or basis for projecting a penetration rate. We don't
17 even have programs designed yet for penetration, for
18 fuel switching, so what we were doing was producing a
19 scenario and the scenario assumed, for argument's sake,
20 that the fuel switching penetration rates were the same
21 as the efficiency improvement penetration rates in the
22 absence of anything better. It's no more or less than
23 that.

24 Q. So, the 23 per cent is then your best
25 guess at this time for fuel switching given a

1 preliminary analysis of what the issues might be?

2 A. That's my assessment of it, yes.

3 Q. I see Ms. Fraser leaning towards the
4 microphone. Do you have a different view?

5 MS. FRASER: A. No, that's my view, too.

6 THE CHAIRMAN: Just before you go on,
7 there has been a reference to an interrogatory, it
8 probably should be recorded. 4.12.73; is that correct?

9 MR. ROSENBERG: Yes. Mr. Chairman, that
10 is in our material.

11 THE CHAIRMAN: Even if it is in the
12 material, what we have been doing if it is referred to
13 and it isn't specifically a separate exhibit, we have
14 collected it together so that it might be of some help
15 to the parties if they are reviewing the panel
16 evidence.

17 That should be the next exhibit.

18 THE REGISTRAR: 261.44, Mr. Chairman.

19 ---EXHIBIT NO. 261.44: Interrogatory No. 4.12.73.

20 MR. ROSENBERG: Q. For ease of
21 reference, that's at Tab 1, pages 144 of our material.

22 MS. FRASER: Excerpts of it are at that
23 part.

24 MR. ROSENBERG: Yes. And I was going to
25 say attached to the answer was probably a hundred

1 documents that Hydro delivered to us. So, what we have
2 put out is the interrogatory question.

3 Q. So, dealing with penetration rates
4 for fuel switching, we understand now that that was
5 your best guess given the preliminary view.

6 Now, with energy efficiency programs, is
7 that a harder number? Is that a number that you have
8 more confidence in, albeit not having done a full
9 analysis, but more confidence?

10 MS. FRASER: A. It's a number that has
11 evolved over time. And again, the numbers which are
12 given are averages over the period to the year 2000.

13 I would again refer you to both Exhibit
14 25 and Exhibit 76 which track the history of our
15 penetration rate estimates, and they end up by the end
16 of the decade going as high as -- I believe this was
17 citing 55 per cent, I think now as high as 60 per cent
18 in some places, in order to come up with the average
19 over that period. And again, the average is not in
20 terms of numbers of customers; it's the per cent of the
21 potential attainable, the potential induced that can be
22 attained.

23 So, you may get it from 100 per cent of
24 the customers but only get 30 per cent from each.

25 Q. In Exhibit 257, which is called,

1 "Fuel Switching Potential in Ontario by the Year 2000",
2 its dated 31st of July, 1991, I would just like to
3 discuss with you the fuel switching issue from, let's
4 say, electricity to gas, and try to understand how
5 Hydro is analyzing the issue and targeting 23 per cent
6 penetration rates, or some other penetration rate.

7 Firstly, Ms. Fraser, could you please
8 explain briefly what this study is so that we can put
9 our questions in the context of a brief overview of
10 Exhibit 257?

11 A. I will pass that question over to Mr.
12 Burke. He spoke to it eloquently in his direct.

13 MR. BURKE: A. This is a study of the
14 potential for fuel switching in Ontario in the year
15 2000 that is economic and which attempts to only look
16 at the potential to look at natural gas, although there
17 is brief reference to the estimate were we to convert
18 the eligible electricity uses to oil as well.

19 Q. Now, you may recall, Mr. Burke, that
20 in the Consumers' Association of Canada (Ontario)
21 branch opening statement we identified some energy
22 prices as of January 1991 for your average residential
23 customer, and these were taken from an Ontario Energy
24 Board hearing. I will just repeat it again. I know
25 it's on the record. The quote is - and this is from

1 the Deep River Ontario decision of the Ontario Energy
2 Board.

3 "For a consumer using heating and
4 requiring 2,895 cubic metres per year of
5 natural gas, the cost for that natural
6 gas would be at the rates in place
7 today..." that's Consumers' Gas rates
8 and Deep River, in their eastern region
9 of Ontario, the Ottawa Valley.

10 For natural gas, \$539.91, or say \$540,
11 for oil it would be \$1,157, and for electricity \$1,267,
12 for propane, \$1,811.

13 Now, Mr. Burke, using these numbers as a
14 guideline, and I realize they change daily or weekly,
15 but using the ratios, is the whole idea behind fuel
16 switching to allow residential consumers to pay less to
17 heat their home?

18 One issue, for example, is in eastern
19 Ontario apparently it would cost you 5- or \$600 less a
20 year to heat your home if you used gas rather than
21 electricity.

22 A. No, the analysis that is done for the
23 cost-effectiveness of the fuel switching is not based
24 on current prices; it's based on long-term projections.
25 Ideally, it would be based, as we indicated in our

1 direct, on the avoided cost of natural gas rather than
2 the price. So, that it might not necessarily be the
3 cost the customer themselves face, but more that
4 essentially the province faces for natural gas in that
5 use, should they differ.

6 Because we did not have the avoided cost
7 of natural gas, we used the price as a proxy and we
8 looked at the analysis over a twenty year forecast
9 period. So, that current prices are not necessarily a
10 good indicator of future prices and it's really only
11 the lifecycle cost analysis that is relevant.

12 It is also the case that the particular
13 numbers that you are referring to seem -- at least I
14 believe for natural gas, fuel oil and propane, all
15 assume 65 per cent efficiency, and that may not be the
16 appropriate efficiency level, and operating costs are
17 far from the only costs involved in conversion, so that
18 the capital costs of making the switch must be
19 recovered over the lifecycle of the conversion.

20 Q. Given all that, a few basic truths
21 remain though, and that is that for the last number of
22 decades; in fact, probably since the time of the
23 TransCanada pipeline being built, that natural gas has
24 always been cheaper than electricity in terms of
25 heating your home; is that correct, Mr. Burke?

1 A. That's correct.

2 Q. And in terms of your projections for
3 the future, and just talking about price, you would
4 expect that natural gas over the lifetime of this plan,
5 twenty five years, is expected to be cheaper than
6 electricity.

7 A. That's correct, yes.

8 Q. In terms of the conversion costs from
9 electricity to gas, they are some distinctions that
10 have to be made in terms of whether the home is heated
11 electrically through baseboard heating or through
12 forced air; correct?

13 A. Yes, those are distinctions we have
14 made, other parties have expressed some sort of views
15 on whether those are valid distinctions.

16 Q. Now, I am looking at Exhibit 257,
17 page No. 3, and I am looking at space heating in the
18 first paragraph, and I have drawn a conclusion from
19 that, and I would like you to either corroborate or
20 refute or explain the problem that I have with my
21 conclusion. It says in the first paragraph, in 1990
22 there were about 500,000 electrically-heated houses in
23 the province. About one-third of these houses have
24 central heating systems and two-thirds use primarily
25 baseboard heaters.

1 Now, Mr. Burke, during your evidence, I
2 understood it that the assumption for this study was
3 that 50 per cent of the homes of these 500,000 were in
4 areas where gas was available and 50 per cent of the
5 500,000 were in areas where gas was not available; is
6 that correct?

7 A. Yes.

8 Q. So, I take it from that number that
9 we can assume that 1/6th of the homes currently heated
10 by electricity are houses which have central heating
11 systems; is that correct?

12 A. In gas available areas.

13 Q. In gas available areas.

14 A. That's correct, yes.

15 Q. So, approximately 1/6th of the homes
16 have duct work already in place, that's 1/6th of the
17 500,000 homes, have duct work in place which would mean
18 if they were to convert from electricity to gas, would
19 only require the change of a furnace rather than the
20 construction of duct work in the home; is that correct?

21 A. Yes.

22 Q. I also take it from this, logically
23 from this material, that if you have the duct work
24 already in place in your home and you had a forced air
25 gas furnace, or a forced air electrical furnace, that

1 those would be the most likely people to convert from
2 electricity to gas.

3 A. Under what circumstances do you mean,
4 Mr. Rosenberg?

5 Q. Well, let's take a circumstance.
6 What is the average life of an electric forced air
7 furnace, is it twenty years, fifteen years?

8 A. Well, it's twenty five years and
9 sometimes it's not clear whether anything does wear
10 out, but there may be others who can speak to that.
11 Twenty-five years is what we usually assume.

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1 [3:20 p.m.] Q. So, over the lifetime of this plan,
2 25 years, you would expect that everybody who had an
3 electrical furnace, forced-air furnace would probably
4 convert -- not probably convert; would have to replace
5 that furnace?

6 A. Well, that might be an assumption one
7 would make for planning purposes. Whether that is
8 realistic...

9 Q. Well, isn't that how you plan?

10 A. Yes, sure. That is a reasonable
11 assumption. I will stop there. That is fine.

12 Q. So, the assumption is, you take the
13 average life of some object like a furnace and you
14 figure out when it might have to be replaced, and with
15 electrical furnaces, it is approximately every 25
16 years?

17 A. Yes.

18 Q. I take it that the most likely point
19 in time when the residential consumer who has a
20 forced-air electrical furnace with duct work in the
21 home is likely to convert from one fuel to another is
22 when they have to replace their furnace?

23 A. Yes. If they were to, yes.

24 Q. And do I take it --

25 MR. MACLELLAN: A. Excuse me. That is

1 not necessarily the case, mainly because of the time
2 required to install a gas line from the street, for
3 example. Furnaces do not frequently fail in the
4 summer; they always fail in the winter, and it is
5 difficult to get a gas line in. It cannot be done the
6 same day. You need the heat, so it cannot be made as a
7 sweeping statement like that.

8 Q. I understand there will be many
9 factors as to when somebody might switch fuels because
10 of, for example, what you have said or incentive
11 programs that are available from furnace supplies and
12 so on.

13 But from first principles, wouldn't it
14 seem likely, Mr. MacLellan, that the most likely time
15 that somebody would change from one fuel to another is
16 when their furnace is broken because of the common
17 sense dictum, "if it is not broke, do not fix it"?

18 A. It sounds reasonable, but as I say,
19 there are a lot of practical problems surrounding that,
20 that the gas companies actually try to get around by
21 putting in temporary propane hook-ups and things like
22 that. They do not even attempt to dig a trench in the
23 winter.

24 Q. Let's look at that group in isolation
25 as 1/6th of the 500,000 customers. Would you agree

1 with me, Mr. MacLellan, that they are the most likely
2 of the 500,000 to switch from electricity to gas?

3 A. The most likely, yes.

4 Q. The reason for that is their cost of
5 switching will be the least of the other classes?

6 A. Right.

7 MR. BURKE: A. This is where I wondered
8 what the circumstances were. I mean, is it just that
9 their furnace has failed or they would actually make
10 the conversion under normal market conditions that we
11 have today?

12 Q. Well, that is what I want to get
13 into. But I take it that their lowest -- of the
14 various classes of electricity, customers who use
15 electricity for space heating, they will have the
16 lowest first cost, absent any incentive program; is
17 that correct?

18 A. As one of the interesting things in
19 doing this, as you observed, for a long time,
20 electricity has been more expensive than natural gas,
21 yet people have still chosen electricity. It is not
22 clear, given the history, that they wouldn't continue
23 to. In fact, we have very little evidence of people
24 converting from electricity to natural gas currently.

25 Q. Well, we are going to look at whether

1 or not Ontario Hydro has been promoting electricity for
2 space heating and I am going to deal with that
3 separately.

4 I just want to look at the conversion
5 issue and we now know, Mr. Burke, that this group is
6 the most likely to convert and you are not sure when
7 they might convert because it is not as simple as I put
8 forward. Is that your assessment, Mr. MacLellan?

9 MR. MacLELLAN: A. Yes.

10 Q. Now, where in this study does it
11 identify this 1/6th group; those who have space heating
12 with electricity, but have forced-air electrical
13 furnace and therefore duct work in place, where in this
14 study does it separate out that group and look at the
15 potential for converting that group to gas more quickly
16 than the other 5/6ths?

17 MR. BURKE: A. Well, as far as the issue
18 of more quickly or not, we made the assumption that it
19 would be economic for all of these systems to be
20 converted by the year 2000 and that we were not going
21 to wait for a replacement.

22 Q. So, in this study, you have assumed
23 that all 500,000, or excuse me, is it 500,000 or
24 250,000 are going to convert?

25 A. Of the 250,000 in the areas where

1 natural gas was available, that all of them one way or
2 another we could fuel switch them by the year 2000 and
3 it would not be a function of when the electric furnace
4 actually failed.

5 Q. And what about the areas that are not
6 currently being served by gas?

7 A. The study doesn't address that.

8 Q. So, the study doesn't address what
9 incentives Hydro could give to gas companies or
10 municipal utilities to, in effect, provide an incentive
11 for moving their residential heating load from or
12 Ontario Hydro's heating load from residential
13 electricity to residential gas heating? Let me go
14 back.

15 A. Yes.

16 Q. Currently, Ontario Hydro, at least up
17 until this spring, Ontario Hydro was not involved in
18 promoting gas service to residential customers;
19 correct?

20 A. Well, my understanding is that - and
21 I think Mr. Wilson and Mr. MacLellan have given this
22 testimony already - that when asked for advice by
23 customers, Ontario Hydro provides them with the cost
24 information and it is fairly transparent to customers
25 which is the cheapest option for heating, and they

1 leave it to the customer to make the choice in the face
2 of the evidence.

3 Q. It is my understanding, Mr. Burke,
4 that the community of Deep River and Ontario Hydro and
5 Consumers Gas Company are currently in negotiations
6 whereby Ontario Hydro will provide what is known as a
7 contribution in aid of construction; that is, a direct
8 grant of money to either Consumers or the Town of Deep
9 River to put a gas line into that town in order to take
10 people off electrical space heating and put them onto
11 gas space heating. Is that understanding your
12 understanding?

13 MR. MacLELLAN: A. I know there is a
14 pilot program to that effect going on. I honestly do
15 not remember that it is Deep River right now, but I
16 know it is going on.

17 Q. Is your understanding, Mr. MacLellan,
18 that that pilot program is to, in fact, see Ontario
19 Hydro commit certain funds to the project to make it
20 more economically viable in terms of first costs of
21 putting in the pipelines and infrastructure necessary
22 to deliver natural gas?

23 A. That is as I understand it, from my
24 limited understanding of it.

25 Q. I take it that this study, Mr. Burke,

1 didn't even look at that possibility; that is, taking
2 the 250,000 people in communities where gas isn't
3 available and through some kind of a grant or financial
4 program, make gas available to those people?

5 MR. BURKE: A. We did not consider
6 adding communities to the grid in the study. I don't
7 know how significant the potential is to economically
8 add communities to the grid. I think that is something
9 yet to be determined.

10 Q. So, I understand this study, then,
11 that was done, not what was not done, the study assumes
12 by the year 2000, 50 per cent of the people who use
13 electricity for space heating in the residential sector
14 will be off electricity and onto gas?

15 A. The potential exists to convert
16 two-thirds of the 50 per cent economically to gas
17 because of the distinction we made about the costs of
18 retrofitting duct work into two-storey houses, so that
19 only half of the remaining two-thirds of the 50 per
20 cent.

21 Q. Using broad numbers then, it is
22 economically feasible to take all 250,000 people who
23 are in areas where gas is presently available and put
24 them onto gas by the year 2000? It is economically
25 feasible to do that?

1 A. No. I think that is what I am
2 saying. It is only two-thirds of the 250,000 where it
3 is economically feasible because, as the paragraph
4 indicates that you were referring to, two-thirds of the
5 houses use baseboard heaters. But as we later explain
6 the economics of conversion, means that we have to --
7 in the second paragraph, I guess on page 3 or second
8 paragraph of that section, we explain that the costs of
9 conversion for two-storey houses can be as much as
10 \$6,000 and that that would not pass the total customer
11 cost test.

12 Therefore, we restricted the potential,
13 economic potential to only one-storey houses which did
14 not have duct work plus the one-third of the 500,000
15 houses which were in gas areas which were central
16 furnaces and had duct work already.

17 So, we had two slices of the pie, 1/6th
18 each, and there is a nice picture of that in an
19 overhead in Exhibit 260, I could look up for you. I am
20 sure you have seen it.

21 Q. So, we have 1/6th. Dealing with
22 areas where gas is available, we have 1/6th who can
23 convert right away because they have forced-air
24 furnaces?

25 A. Yes.

1 Q. Then of the remaining two-thirds of
2 that 50 per cent, what is the factor that you weight
3 that in terms of conversion?

4 A. Half of that, so another 1/6th of the
5 total.

6 Q. So that is in total, 2/6ths or 33 per
7 cent could convert?

8 A. That is right. 167,000 houses are
9 included in the potential for conversion to gas by the
10 year 2000.

11 Q. And if I can get back to the
12 guesstimate of 23 per cent penetration rate, I
13 understand that that is not a hard number or one that
14 you will commit to in the long run because you are
15 studying it, but how does that 23 per cent fuel
16 switching equate to this study, which showed that 33
17 per cent of the 500,000 would switch by the year 2000?

18 A. It is the difference between
19 potential induced and attainable induced. Potential
20 induced simply says there are that many customers out
21 there who could potentially economically, by the year
22 2000, switch from electricity to natural gas. Then
23 there is a second layer of the analysis which says:
24 How many of them do we think we can actually convince
25 to make that transition and actually complete it by the

1 year 2000? And it is the second stage at which a
2 penetration rate is applied to the eligible market.

3 Q. The 23 per cent, is that an induced
4 figure?

5 A. It gives the proportion of the
6 potential induced which is attainable in the time
7 period specified.

8 Q. When we talk about "induced", could
9 you quantify the inducement that you are referring to?

10 A. Whatever it takes to get there. At
11 this stage, we haven't got particular estimates in
12 place.

13 Q. Now, this study from my reading of it
14 made no distinction between the potential, excuse me,
15 the attainable induced in the forced air situation
16 versus the baseboard situation; is that correct? There
17 is no different number for the two different
18 situations?

19 A. Sorry. The penetration rates are not
20 different in the two different situations?

21 Q. That is correct.

22 A. That is correct. We also haven't
23 particularly assigned the penetration rate
24 individually. We have essentially assigned a
25 penetration rate to the total.

1 Q. Wouldn't you expect, Mr. MacLellan, a
2 different penetration rate with respect to those homes
3 that have forced air electrical furnaces versus
4 baseboard heating, absent any inducement?

5 MR. MacLELLAN: A. Oh. Absent of any
6 inducement? Probably.

7 Q. And given that there will be a
8 different level of penetration, if you were to add
9 inducements, it would certainly cost Hydro less to
10 induce somebody with a forced-air electric furnace than
11 it would be induce somebody with baseboard heating?

12 A. Yes. It probably would cost Hydro
13 less.

14 Q. Once again, this study doesn't
15 analyze that situation, does it?

16 MR. BURKE: A. No.

17 MR. MacLELLAN: A. If I could just add a
18 bit of detail to the Deep River project that you
19 suggested. There are several runs at this. There are
20 several scenarios in the PCRD and all three runs prove
21 to have a negative cost benefit. The total customer
22 cost test did not pass.

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25 ...

1 [3:30 p.m.] So, it is one of those projects that we
2 are still working on to see under what conditions it
3 would pass total customer cost test. That is likely
4 why you don't see it in Mr. Burke's analysis.

5 Q. Would it be fair to say, let's take
6 two snapshots in time, ten years ago and today. Ten
7 years ago, Ontario Hydro would not even consider
8 providing a contribution in aid of construction to a
9 natural gas utility to go into a community and put gas
10 lines in and thereby take customers off the electrical
11 system in terms of residential space heating. That's
12 ten years ago.

13 A. Ten years ago I would say that is
14 true.

15 Q. Today, what we have is in effect
16 Ontario Hydro considering paying money to local
17 municipalities or to gas utilities to get people off
18 electrical space heating. Is that accurate?

19 A. Considering is a good description of
20 it.

21 Q. So, that the shift in ten years is
22 that ten years ago you wouldn't consider it and now you
23 are seriously considering it, but you may or may not
24 have concluded any deal because of what I might call
25 process concerns?

1 MR. WILSON: A. Mr. Rosenberg, two years
2 ago. We weren't considering it two years ago. You
3 don't have to go back ten years. Circumstances were a
4 lot different ten years ago, but even two years ago
5 when the DS Plan was published, we were not considering
6 this.

7 Q. When did you start to consider it?
8 It certainly wasn't this summer. Negotiations in Deep
9 River have been going on for some time.

10 A. I don't know when the negotiations
11 started. I do understand that the senior executives of
12 the gas distribution utilities have expressed their
13 enthusiasm with helping Ontario Hydro out of its
14 problems in the 1990s and benefiting their customers
15 and their shareholders to boot, and they have been
16 making that offer on a fairly regular basis for a
17 number of years.

18 Q. You would agree me, though, Mr.
19 Wilson, that certainly on July 31 of 1991, a little
20 less than six weeks ago, that Ontario Hydro officials
21 were discussing with Consumers Gas executives and
22 possibly the executives from the Town of Deep River the
23 possibility of Hydro providing contribution in aid of
24 construction to bring gas service to Deep River, the
25 effect of which is to get Deep River customers off

1 electrical space heating?

2 A. I don't know specifically when the
3 conversation started but we have in the PCRD a
4 documentation of the cost/benefit analysis, and that is
5 dated March 28, 1991, so certainly some work was going
6 on before that.

7 Q. The reason I find it important is
8 that this fuel switching potential in Ontario by the
9 year 2000 has a July 31, 1991 date on it. It is
10 Exhibit 257.

11 Given that Ontario Hydro was now in the
12 business of at least thinking about paying gas
13 utilities to get people off electrical space heating,
14 why was that not even considered as an option in this
15 paper?

16 A. Well, we considered lots of things
17 over the last few years. It wasn't really until the
18 amendment to the Power Corporation Act was introduced
19 in June of this year that the real prospect of programs
20 and cash payments was actively added to our things to
21 think about.

22 We had the Ontario Energy Board
23 recommending a few weeks ago that we rush on with
24 program design in anticipation that the Act will be
25 passed. Things are moving very quickly in this area

1 and I think to quibble over a couple of months is
2 quibbling.

3 Q. Well, it gets to the point about
4 walking like you're talking and analyzing what Ontario
5 Hydro says versus what Ontario Hydro does. And you
6 would agree with me, Mr. Wilson, that if we could get a
7 considerable portion of the 50 per cent of the 250,000
8 customers who are in areas where gas isn't currently
9 available into areas where there is gas available, that
10 is, promote the distribution of natural gas, it might
11 affect the ability of Hydro to shed a significant
12 portion of those customers who currently require
13 electricity for space heating needs?

14 A. Provided that it passed the cost
15 effectiveness test, Hydro would agree.

16 Q. But you would agree with me that that
17 isn't even discussed in this report, dated July 31,
18 1991?

19 MR. BURKE: A. We haven't done enough
20 analysis, really, to -- well, the only analysis we have
21 done, that I am aware of, shows that that is
22 uneconomic. It seemed to be a poor basis for this
23 report to proceed on the assumption we were going to do
24 uneconomic things.

25 Q. Just to finish off on the point, I

1 understand that you have been looking at it for some
2 time, certainly prior to July 31, 1991.

3 MR. WILSON: A. Yes, but it didn't look
4 good.

5 Q. I just read the introduction. I am
6 taking this report at face value and the introduction
7 says:

8 This report examines the fuel
9 switching potential in Ontario by the
10 year 2000.

11 And you would agree with me, I take it
12 then, that if you were to add to this study issues like
13 the -- not add to it, to make the report, refine the
14 report so that it includes an analysis of the ability
15 to bring gas service to the 250,000 residential
16 customers of Ontario Hydro who use it for space heating
17 and thereby allow them to get off electricity, the fuel
18 switching potential will be much higher than this
19 report, dated July 31, 1991, anticipates?

20 MR. BURKE: A. I guess what I have
21 difficulty with is the "much" because I think upon
22 investigation we will find that there are not that many
23 houses of that 250,000 that could be readily connected
24 to the natural gas system economically.

25 Q. But you don't know that, do you?

1 A. Well, we have a pretty good sense of
2 three or four major communities that the gas company
3 over the years may have wished to connect but for the
4 economics of that connection, and we haven't analyzed
5 what difference our contributions that we could make
6 economically would make, but there are only, as far as
7 I understand, three or four towns that really have any
8 sizable number of electrically heated customers in
9 them. And that's my current perception of it.

10 The largest portion of electrically
11 heated houses in the rural areas are in fact in very
12 small communities or individual farm houses, that sort
13 of thing, and my sense is that we are making reasonable
14 approximations here. And that the 50 per cent natural
15 gas availability figure covers the existing housing
16 stock fairly well.

17 I mean, to be helpful in a sense, the
18 \$3,000 that the duct work costs that we seem to be able
19 to include in the total customer cost test per customer
20 is probably a useful proxy for how much one can pay for
21 expanding gas pipeline facilities. I mean it is an
22 equivalent thing, extra costs that you could incur to
23 get gas to the customer.

24 And then of course there is the question
25 of whether those customers had central furnaces or duct

1 work themselves. If the customers don't split out
2 nicely and you find that the proportion, you know, in
3 those communities that have duct work versus don't, it
4 still might be uneconomic, so there is a lot of data
5 gathering to be done. I am not sure that one could say
6 that what's missing is a lot. I don't think there is
7 any basis for drawing any inference that there is very
8 much missing here at all.

9 Q. I am not going to belabour the point
10 that you haven't studied it because you don't know. I
11 am more interested now in the \$3,000 figure. What
12 importance did you say you would place on that \$3,000
13 figure?

14 A. It is the amount that, the 3,000/3500
15 is the amount that we feel we can pay for the
16 conversion of houses without duct work to duct work in
17 order to still have an economic conversion from
18 electricity to natural gas. Effectively that says to
19 me that that is the amount we can pay one way or
20 another to convert an electrically heated house to
21 natural gas.

22 Q. So your statement then is that if we
23 look at the number 3,000 to 3500 per household, that a
24 good indication of what is economically viable would be
25 to go to the gas utilities and say, we can give you

1 3000 to 3500 dollars per household as a contribution to
2 a gas line. You tell us how many households you can
3 convert.

4 A. I think we are starting to do a
5 little analysis on the stand here, but it is what we
6 can absorb within a total customer cost test in the
7 analysis that is described in Exhibit 257.

8 Q. So, not a quick analysis but a fix on
9 what change there might be on the 250,000 number in
10 terms of people in areas where gas isn't available,
11 would be to go to the gas utilities and say, we will
12 pay you \$3,000 to \$3,500 per household to deliver gas.
13 You tell us how many of the 250,000 you could take on,
14 assuming that it was an economic project from the gas
15 utility's point of view.

16 A. Yes. And also that those houses did
17 not have baseboards but in fact had the ducts in place.
18 If they don't have the ducts, then the 3500 is going to
19 be spent on just taking care of the duct conversion.

20 Q. But isn't that the gas utility's
21 problem? The point is you will pay them \$3,000 to
22 \$3500 to deliver gas and they then have to determine--

23 A. No.

24 Q. --whether they can do it economically
25 or not?

1 A. No, that's not correct. The total
2 customer cost test is independent of who is doing the
3 paying. It looks at what is the cost, whether it is
4 borne by the utility, the customer, Ontario Hydro,
5 whatever. So, there is a total of about \$3000 or \$3500
6 to play with all told in making the conversion of the
7 customer to gas, no matter who is paying it.

8 Q. But \$3000 to \$3500 is what Hydro
9 would pay?

10 A. No. \$3000 to \$3500 is what is -- is
11 the amount which renders it economic from the total
12 customer test perspective. Any more than that and it
13 is no longer economic from the total customer cost
14 perspective, which implies any agent in the economy, it
15 doesn't matter who, could pay no more than \$3500 in
16 total for an economic conversion.

17 Q. I would just like to understand, Mr.
18 Burke, how it would work in practice. You have 250,000
19 customers who currently aren't being served by gas;
20 correct?

21 A. Yes.

22 Q. And you have told us that there might
23 be a handful of communities that you are aware of where
24 gas might be brought in to serve the electrical space
25 heating needs of that community.

1 A. Might be. May not be.

2 Q. So we have three or four communities.

3 How is it that the \$3000 or \$3500 is important to the
4 gas utility. Let's assume that you said to the gas
5 utility, as a contribution in aid of construction, we
6 will provide \$3000, that is, Hydro will provide you a
7 grant of \$3,000 per customer to convert these customers
8 who use electricity for space heating.

9 A. I am not going to say any more than
10 what I have said which is that that is the amount that
11 is available in applying the total customer cost test.

12 In program design and so on and who gets
13 what money is not something that we can really assess
14 here.

15 Q. Mr. MacLellan, can you help us out?

16 MR. MACLELLAN: A. In what?

17 Q. I am just look at a theoretical -- a
18 community out there, a small community, doesn't have
19 gas service, and are interested in acquiring gas
20 service. Okay? Are you with me so far?

21 A. Yes.

22 Q. A gas utility looks at putting gas
23 into that community and finds that the net present
24 value of doing the undertaking, the benefit/cost ratio,
25 is not one, so that it is not quite economic to bring

1 gas to that community. Are you with me so far?

2 A. Yes, sir.

3 Q. In order to bring gas to the
4 community, they might require a contribution in aid of
5 construction and they ask Ontario Hydro for that
6 contribution.

7 A. Yes.

8 Q. And I take it the evidence so far is
9 that the maximum number or maximum amount that would be
10 available to that community would be \$3000 to \$3500 per
11 household because that is the number generated by the
12 total customer cost test of Ontario Hydro; is that
13 correct?

14 A. That's correct. But that's also the
15 approximate level that failed our total customer cost
16 test regarding our contribution to that kind of a
17 project. But -- go ahead.

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25 ...

1 [3:50 p.m.] Q. The \$3,000-\$3500 was too high or that
2 didn't generate sufficient contribution?

3 A. Well, we are kind of comparing two
4 things here. Mr. Burke's \$3,000 which he said was
5 effectively a proxy for how much we could afford to
6 provide -- sorry, how much society, I guess, could
7 afford to provide to a switch of fuel type, and you are
8 comparing that with really the only analysis we have on
9 gas pipeline extension, which is based on certain
10 assumptions and it fails the total customer cost test.

11 So, again at the risk of doing analysis
12 on the panel, we are trying to compare two things that
13 are not strictly comparable.

14 I think the issue is to make sure that we
15 don't count that \$3,000 and \$3500 twice. We can't give
16 it to the gas company and then have the gas company use
17 some funds to provide to the customer to get baseboard
18 switched in duct work or that kind of work. So, we
19 have to make sure that we are not giving double
20 incentives.

21 Q. So, how would you go about analyzing
22 it. You say that the current handful have not passed
23 your total customer cost test, at least the ones that
24 you have analyzed. What needs to be done to get some
25 of those 250,000 people, whether it's a 100 or 5,000 of

1 them, or a larger number, how do you get gas to those
2 people?

3 A. The first thing we would need to do
4 is try to figure out what the total market is, and has
5 been stated, an awful lot of them are in the middle of
6 the country. I believe somewhere around 120,000 are
7 farm houses, it's not likely they will ever be served
8 with gas. There are also substantial areas of the
9 province, Kincardine, Port Elgin, up around that area,
10 there is not a gas line for many, many, many miles.
11 So, it's unlikely they will be eligible. So, the
12 number comes down fairly quickly.

13 But then we would probably approach the
14 gas company and try to come to some agreement as to
15 what the market potential was. We would need to put a
16 lot of conditions on we will pay you "X" dollars for
17 every customer, because it all depends on size of
18 house, it depends on baseboard or forced air. It
19 depends on a lot of things, but that's the kind of
20 analysis that we would have to undertake.

21 Q. If you were to undertake that kind of
22 analysis, I take it it would flesh out the issue I have
23 identified as missing in this Exhibit 257?

24 A. It would be the kind of work we would
25 have to do to find the market potential and make the

1 proposal as stated in the PCRD pass the total customer
2 cost test, to try and balance those two things.

3 Q. Are you currently undertaking that
4 have research or are you waiting to see if the
5 amendments to the Power Corporation Act are, in fact,
6 passed?

7 A. I am actually not involved in the
8 Deep River project specifically, so I guess the answer
9 has to be I'm not sure.

10 Q. Does anybody on the panel know
11 whether or not this research is currently going on to
12 add to research done in Exhibit 257?

13 MR. WILSON: A. I think none of us know
14 the answer to the question.

15 Q. Will there be people who will be put
16 forward by Ontario Hydro in subsequent panels who will
17 have the answer, or at least some understanding of this
18 problem?

19 MS. FRASER: A. I believe Exhibit 275
20 details some questions that we have posed to the
21 provincial government, and the evidence that was given
22 this morning indicated that we were beginning
23 consultations on that. There are a lot of policy
24 issues reflecting whether -- expectations in the
25 scenarios that we developed relative to mandation,

1 whether or not the province said, okay, anyone that has
2 gas available to them has to use gas, the way they have
3 done for non-profit housing, and the issues with
4 respect to the long-term cost of gas and so on that are
5 outlined in Exhibit 275. So far, the response that we
6 have had from the government on that is that that we
7 have to do a lot of consultation on it and I believe
8 those consultations are starting; however, none of us
9 that are on the panel are in those consultations,
10 obviously.

11 Q. I understand, and I don't want to ask
12 you questions that you don't have personal knowledge
13 of.

14 The only question I have is whether or
15 not there will be an Ontario Hydro witness panel, for
16 example, in later panels, the planning panel, who will
17 be informed on these activities and can explain to my
18 client through process, and the panel, what Hydro is
19 doing about fuel switching and the contributions in aid
20 of construction and other mechanisms to get gas to
21 areas where there currently is not gas.

22 MR. SHALABY: A. I don't expect
23 witnesses in future panels to be more expert than this
24 panel here.

25 MRS. FORMUSA: I can confirm that that is

1 the case. Anything to do with program design and
2 concepts, Mr. Rosenberg has asked his questions of Mr.
3 Burke and Mr. MacLellan, and they have answered them to
4 the best of their ability.

5 I think the bottom line is as Mr. Burke
6 has said, if it's not economic it hasn't made it into
7 the analysis.

8 It may be that the work going on in the
9 PCRD, whether it's with respect to Deep River, will at
10 some point with all the various parties involved come
11 up with something that is economic, but right now it's
12 not foreseen to be, as I understand from what the
13 witnesses have said, and it is therefore not included
14 for planning purposes.

15 THE CHAIRMAN: This would be a good time
16 to take the break.

17 MR. ROSENBERG: Yes.

18 THE CHAIRMAN: Fifteen minutes.

19 THE REGISTRAR: This hearing will recess
20 for fifteen minutes.

21 ---Recess at 3:57 p.m.

22 ---On resuming at 4:15 p.m.

23 THE REGISTRAR: Please come to order.
24 This hearing is again in session. Please be seated.

25 THE CHAIRMAN: Mr. Rosenberg?

1 MR. ROSENBERG: Thank you, Mr. Chairman.

2 If I may just have one second with Mr.

3 Gibbons.

4 THE CHAIRMAN: We are missing a panel
5 member.

6 MR. ROSENBERG: Mr. Chairman, I was
7 considering during the break how to deal with the issue
8 of who to cross-examine on this Deep River matter, and
9 what we have done and what I propose --

10 THE CHAIRMAN: I am not sure I quite
11 understand the specific connection. I understand, as
12 Mr. Rosenberg said just before we finished, that the
13 evidence of this panel is that they haven't considered
14 the providing of funds from Hydro to the extent of
15 about \$3,000 or \$3500 to help expand the gas
16 distribution system in the province because they don't
17 think it's a feasible thing to do. That's perhaps too
18 short, but that's basically what they said.

19 Now, where does Deep River fit into that?
20 That's where I have some problem with.

21 MR. ROSENBERG: If I can, without giving
22 evidence, just describe the situation.

23 Deep River is a community in the Ottawa
24 Valley and they have, for a number of years, tried to
25 obtain gas service and every time they go to the

1 Ontario Energy Board they have been told that they
2 don't meet the criteria. There are certain minimum
3 thresholds for economic feasibility.

4 Over the last two years a hearing has
5 been continuing with respect to Deep River where they
6 finally said, and I am paraphrasing greatly here, but,
7 "Yes, Deep River, you can have gas service if you go
8 out and get a contribution in aid of construction. You
9 go out and find a body that will throw some money in
10 the pot to make this project economically feasible
11 within the Energy Board tests."

12 One such target for money, or identified
13 target, was Ontario Hydro. Consumers Gas is the
14 proponent. This hearing has been going on for a number
15 of years and I have been involved in it that's why I
16 have some knowledge of it. It's my understanding that
17 Ontario Hydro started the process by saying "no"
18 sometime ago, and then winter or spring said "maybe",
19 and then said "yes" we will consider it.

20 I understand that today at the break what
21 we have done is Mr. Gibbons phoned Consumers Gas and
22 spoke to Anne Wilson, who is in their accounting and
23 economics department, who advised that Consumers Gas
24 and Ontario Hydro, through Mr. Dane McCarthy,
25 Vice-Principal of Marketing, have in fact agreed in

1 principle to a contribution in aid of construction of
2 up to \$180,000 for the Town of Deep River to obtain gas
3 service.

4 In simplicity - and I don't overstate --
5 well, I can't over-emphasize that this is simplistic,
6 that Ontario Hydro will give the Town of Deep River up
7 to \$180,000 to make the bringing of gas to the town
8 feasible. So, what in effect Ontario Hydro would be
9 doing, if this evidence can be proven, is paying a gas
10 utility in a town to get themselves off electricity.
11 It's, in my understanding, the first in the province.
12 It's also my understanding from Mr. Gibbons' advise to
13 me in his conversation with Anne Wilson that the
14 executive levels in the two organizations, at the
15 vice-president level, have agreed to this and now it's
16 subject to Board approval at Ontario Hydro. Mr.
17 Gibbons also asked whether or not this was available
18 for public information and Consumers Gas had no problem
19 with it. In fact, they are going through a rates
20 hearing right now where these issues are being
21 discussed.

22 The reason it is important to the
23 Consumers' Association is, first, as you know, we
24 raised this in our opening statement. We are concerned
25 about this. This is the first time it's happened.

1 These events are contemporaneous with Exhibit 257,
2 Exhibit 257 says nothing about these issues. We think
3 they are important and we think they are important for
4 this Board to understand, not just because of Deep
5 River, Deep River is a small community of 4- to 5,000
6 people, but from a policy perspective it sets out the
7 alternative available to Hydro; that is, pay people to
8 get off electricity, and it, we believe, has some
9 impact on the alternatives they have examined and not
10 examined for the purpose of this hearing.

11 THE CHAIRMAN: I don't want to get -- I
12 was almost going to say I don't want to get too deeply
13 into this, but I think perhaps you might ask the panel
14 if they know anything about this, if any of them do.
15 That might be the first thing to find out.

16 Then, if anyone is brash enough to
17 volunteer that they do, you can then ask supplementary
18 questions.

19 MR. ROSENBERG: My hope, Mr. Chairman, is
20 that I can at least ask, and if they don't know, maybe
21 by tomorrow morning they might know something.

22 Q. Mr. Wilson, I will start with you.

23 MR. WILSON: A. Do I dare to be brash!

24 (laughter)

25 Q. You have heard my brief explanation.

1 Are you aware, Mr. Wilson, of negotiations that have
2 been going on between Mr. Dane McCarthy who is
3 Vice-President in the Ontario Hydro organization and
4 Mr. Norman Loberg of Consumers Gas with respect to the
5 Deep River situation?

6 A. No, I am not.

7 Q. Would it be possible by tomorrow to
8 discuss with Mr. McCarthy of Hydro to confirm whether
9 or not, in fact, my characterization of current state
10 of negotiations is correct; that is, that executives of
11 the two organizations have agreed in principle that up
12 to \$180,000 would be available to the Community of Deep
13 River as a contribution in aid of construction for a
14 Consumers Gas pipeline into that community among
15 others, to serve the residential needs of that
16 community?

17 A. I believe that should be possible.
18 If Mr. McCarthy is in town, I can find out.

19 Q. I will just leave it at that and we
20 will see where we are tomorrow.

21 Now, continuing on...

22 MR. SHALABY: A. Before we move to
23 another point...

24 MRS. FORMUSA: Are we going to give that
25 a number?

1 THE CHAIRMAN: I don't think so.

2 Probably no one is going to forget about it.

3 (laughter)

4 You may want to make some submissions
5 about it, I think you probably will be involved in
6 that, too.

7 MRS. FORMUSA: Yes.

8 MR. SHALABY: Just to, now that we are
9 into finding things out quickly, I wanted to give you a
10 response to the previous undertaking that was given
11 before the break. Maybe we can delete it if you are
12 satisfied.

13 I found in the evidence a statement of
14 Hydro's corporate goal at the time of formulating the
15 Demand/Supply Plan, it's in Exhibit 74, page 10, and
16 the statement of the corporate goal there is identical
17 to the one that's on page 107 of your exhibit.

18 So, that one was current at the time of
19 formulating the Demand/Supply Plan.

20 MR. ROSENBERG: That satisfies the
21 undertaking.

22 THE CHAIRMAN: Can we just note that.
23 What number is that? That last number, the last
24 undertaking I think it was.

25 MR. ROSENBERG: Yes, it was the last

1 undertaking.

2 THE REGISTRAR: 267.11.

3 THE CHAIRMAN: 267.11, that's been
4 satisfied.

5 MR. ROSENBERG: Q. I would like to go
6 back to Exhibit 257, page 10.

7 In particular, just look at the two cases
8 that are identified at page 10 and page 11. The bottom
9 of page 10 there is a Case A and a Case B.

10 Mr. Burke, would you be the appropriate
11 person to talk about page 10 and Table 6 or would
12 somebody else be more appropriate?

13 MR. BURKE: A. I am probably the closest
14 person to that on this panel at this point.

15 Q. Now, when I look at Case A, I see
16 that that's just water heating only, correct, and it
17 does not deal with space heating?

18 A. Well, except for the proviso in the
19 first sentence that the house is already assumed to
20 have natural gas space heating.

21 Q. And Case B is replacing a fully
22 depreciated electric baseboard and electric water
23 heater; correct?

24 A. Yes, subject to all of the...

25 Q. Now, in table 6, which is the top of

1 page 11, you set out what I understand to be the
2 savings for Case A and Case B, and I am looking at the
3 net benefits column at the bottom of the chart, it says
4 net benefits, \$500; correct, and that's for Case A?

...

1 [4:25 p.m.] A. Yes.

2 Q. And that is over a ten year period or
3 a twelve year period?

4 A. A twelve year period. The life of
5 the water heater.

6 Q. And with respect to Case B, the
7 incremental costs are \$4,555. Is that the cost of
8 putting in the duct work, replacing the furnace,
9 putting in the gas line, and so on?

10 A. It is the cost of the duct work and
11 the furnace. The gas line itself is assumed to be
12 reflected in the price of natural gas, as it is
13 proxying the avoided cost of natural gas.

14 Q. And the fuel savings over, is that a
15 twenty year or nineteen year period?

16 A. Inclusive, it is twenty years.

17 Q. Over a twenty year period, the saving
18 on the present value are \$6,055?

19 A. Savings from fuel.

20 Q. Yes. And therefore, the net benefits
21 to the consumer for putting in natural gas over a
22 twenty year period would be \$1,500?

23 A. Not to the consumer. The net benefit
24 to the province.

25 Q. The province.

1 A. It is not clear who will actually get
2 this \$1,500.

3 Q. What has not been done is a Case C
4 which deals with electric forced air heating. If we
5 were to put that just for the moment, assume a Case C,
6 approximately what would the net benefits be, given
7 that I assume the incremental costs would be less for
8 the Case C than they would be for the Case B? I do not
9 want to pin you to an exact number, but directionally,
10 what do you think that number might be?

11 A. Well, I think I would prefer to come
12 back to you with that. It is directionally lower.
13 Sorry. The net benefits are directionally higher, but
14 I would like to--

15 Q. I understand.

16 A. --do the calculation notwithstanding.

17 Q. Well, Mr. MacLellan, would you have
18 some approximation of that number, of what it would be
19 if you had a Case C replacing fully depreciated
20 electric forced air furnace?

21 MR. MacLELLAN: A. I would like to come
22 back to you with Mr. Burke, actually.

23 MR. ROSENBERG: Okay. Then if I could
24 have an undertaking then just to that point.

25 THE CHAIRMAN: 267.

1 THE REGISTRAR: 267.12.

2 THE CHAIRMAN: Thank you.

3 ---UNDERTAKING NO. 267.12: Ontario Hydro undertakes
4 to advise what the approximate net
5 benefits would be, if a Case C replaces
fully depreciated electric forced-air
furnace.

6 MR. WILSON: Excuse me. Could you define
7 Case C for us, just so we know?

8 MR. ROSENBERG: Q. Yes. Case C would be
9 replacing a fully depreciated electric forced air
10 furnace and electric water heater in one-storey house
11 with finished basement, et cetera, as in Case B. The
12 only difference between Case B and Case C is that you
13 would already have the duct work in place because you
14 had a forced air electric furnace. Is that understood?

15 MR. WILSON: A. Yes.

16 Q. Now, dealing with the 1/6th group
17 that already has electric forced-air furnace, would you
18 agree that the savings offered by such a conversion by
19 this group are much greater than any other single
20 energy efficiency measure that can be taken by a
21 residential consumer; that is, getting their space
22 heating load off forced-air electric onto natural gas?

23 MR. MacLELLAN: A. Savings to the
24 customer, do you mean?

25 Q. Savings to the customer and to

1 Ontario Hydro.

2 A. Yes, I believe so.

3 Q. So, putting it another way, in fact,
4 no other single measure comes close to offering the
5 return in savings to the customer and the utility that
6 such a conversion would provide; is that correct?

7 MR. BURKE: A. I think there, you are
8 pushing it. I am not sure that we can make a blanket
9 statement like that.

10 All of these measures are designed to be economic. I
11 think if you are now asking which is the most economic
12 amongst the economic measures, we would have to line
13 them all up just to be sure.

14 Q. Well, just looking at the utility and
15 the residential consumer and saying in the residential
16 consumer class, the greatest bang for the buck that the
17 consumer and the utility could achieve is to get the
18 consumer off residential electric space heating?

19 A. Well, in what class of alternatives
20 are you?

21 Q. In the class of alternatives that
22 Ontario Hydro has examined in the Demand/Supply Plan,
23 given the fact that its top priority is demand
24 management, and you would think that the customers' top
25 priority is to reduce their heating bill.

1 A. Yes. And this was for the case for
2 the central forced-air?

3 Q. Central forced-air, yes.

4 A. In both cases?

5 Q. Yes.

6 A. I think of all the measures that we
7 would have to... It is conceivable. It is conceivable
8 that there are some efficiency improvement measures
9 that are more cost-effective per unit of energy saved
10 than fuel switching, but as a package, certainly you
11 get more savings in absolute terms by fuel switching
12 because you are losing the entire load and probably at
13 a cost that is less than if you tried - certainly I can
14 agree this - than if you tried to reduce the whole load
15 through efficiency improvement measures.

16 Q. If you give me a minute, I am going
17 to see if I can agree to that.

18 ---Discussion off the record.

19 MR. ROSENBERG: Q. Very good. Moving on
20 then to the next point. Just had to check.

21 Because the savings potential of this
22 single measure is so great, the ramifications for the
23 attainable level of demand management savings are very
24 significant and that is especially true, isn't it, Mr.
25 Burke, if Ontario Hydro has under-estimated the

1 penetration rates?

2 MR. BURKE: A. Yes. Certainly, if
3 penetration rates are higher, you get more savings.
4 There is nothing special about it; it is just that is
5 the case for any option.

6 Q. I would like you to turn now back to
7 the Exhibit 298, which is the Consumers' pre-filed
8 material and Tab 1, page 113.

9 Mr. Wilson, Ontario Hydro has a large
10 market research function that does a significant amount
11 of customer research to determine customer attitudes;
12 is that correct?

13 MR. WILSON: A. It does more than ask
14 for attitudes, but yes, it does a lot of market
15 research.

16 Q. And in response to our Interrogatory
17 4.12.103, Ontario Hydro provided the Consumers'
18 Association with a number of such market research
19 consumer attitude studies; is that correct?

20 A. I would have to have a look at the
21 interrogatory.

22 Q. Okay. I am going to be referring, as
23 you see on page --

24 THE CHAIRMAN: Perhaps while you are at
25 it, we should add it. 261, 4.12.103.

1 THE REGISTRAR: 261.45.

2 THE CHAIRMAN: Thank you.

3 MR. ROSENBERG: I am going to ask, Mr.
4 Wilson, questions about this particular study.

5 MRS. FORMUSA: Could I just for the
6 interrogatory list, the answer that was given, as you
7 will note, was marked "Supplementary." We have been
8 numbering supplementaries as 4.12.103A just to
9 distinguish it from 103. It might be best to number
10 the last one.

11 ---EXHIBIT NO. 261.45: Interrogatory No. 4.12.103A.

12 MR. WILSON: Is there anyone who could
13 help me with the interrogatory? I do not have a copy
14 of the interrogatory or the response.

15 MR. ROSENBERG: Q. What I am going to
16 do -- maybe while someone is looking for that, we
17 can --

18 THE CHAIRMAN: I have lost track of the
19 question. What is the question?

20 MR. ROSENBERG: Mr. Chairman, I am
21 looking at 4.12.103, which is at page 113 of Tab 1, and
22 I want to ask the witness some questions about the
23 exhibit we were given and Mr. Wilson said he wanted to
24 look at the interrogatory question.

25 We haven't put the interrogatory question

1 with the material; just the underlying document that
2 was given.

3 MR. WILSON: Some interrogatories are
4 answered with a foot-and-a-half of material and this, I
5 think, is one piece of a larger pile of materials.

6 THE CHAIRMAN: I think all he wants to
7 ask you at this point in time is about this particular
8 document.

9 MR. WILSON: Oh. That is fine.

10 THE CHAIRMAN: Is that right?

11 MR. ROSENBERG: That is correct.

12 Q. Now, Mr. Wilson, are you familiar
13 with this particular study that was done by the
14 Environics Research Group?

15 MR. WILSON: A. No, I am not.

16 Q. Is anybody else on the panel familiar
17 with this particular study that was provided to us in
18 interrogatories for this panel?

19 MR. MacLELLAN: A. I am reasonably
20 familiar with it, yes.

21 Q. Okay. First, could you just describe
22 generally what it is, so that we can put the specific
23 questions in a broader context?

24 A. A year or two ago, we had started
25 into a process known variously as psychographics or in

1 this case as classified study, as a psychographic
2 technique to try and segment various consumer
3 attitudes.

4 This specific one is a psychographic
5 study designed by the Electric Power Research Institute
6 in the U.S.. We decided to use the EPRI study, so that
7 we could better compare Ontario consumers to the U.S.
8 and thereby better compare some of the results their
9 programs to the results of ours or programs that we
10 were proposing.

11 So, this is to classify, as the title
12 says, people under various attitudinal segments.

13 Q. At page 4 of this report - that is
14 page 117 of our Exhibit 298 - the second-last
15 paragraph, there is a cite and I will read it because
16 it hasn't been reproduced very well. Page 4 of the
17 report concludes: "Ontarians are more likely to follow
18 a course of action that minimizes environmental
19 impacts, marketing that emphasizes demand reduction and
20 its connection to a cleaner and safer environment would
21 be more successful in Ontario than in the U.S.."

22 Now, do you agree with that quote? That
23 is the finding of this study. Is that something that
24 you have adopted as your own view of the differences
25 between U.S. and the Canadian experience?

1 A. Given that the results this study are
2 considered accurate, it is something that we have
3 tried - I will say that - and it is a marketing appeal
4 that we, as I say, have tried and would like to try
5 again.

6 Q. There are many polls. You read about
7 them in the newspaper every day and many surveys and
8 some, you look at and disregard and others, you find
9 their logic and their conclusions compelling.

10 What I am trying to find out from you,
11 Mr. MacLellan, is this just another survey that was
12 done or is it something that you have taken note of
13 and, in fact, have incorporated in your planning and
14 specifically, the fact that it finds or summarizes that
15 Canadians, in particular, Ontarians are more likely to
16 be more conservation-minded than their U.S.
17 counterparts?

18 A. It is a study that I believe we found
19 it very interesting that that was the only category
20 that varied substantially from the U.S. results. The
21 rest of them, while they different slightly, they are
22 sometimes within the bounds of statistical accuracy.

23 We have, as I say, we have tried it. We
24 haven't incorporated it into our planning for all of
25 our programs.

1 [4:40 p.m.] They describe it as another reason to
2 save energy besides what in some cases is a relatively
3 modest monthly saving, so we think that it would have
4 some impact in causing people to take more action.

5 Q. Isn't one example of this, the
6 practical example of the difference between Canadian,
7 Ontarian residents, and Americans is the Blue Box
8 Program, which is an optional program and in fact has
9 been more successful in Ontario than in jurisdictions
10 in the U.S., and that's a program for streaming certain
11 parts of the waste stream out of the landfill site?

12 A. It was one of the reasons why this
13 report was considered accurate: that that difference
14 was considered substantial.

15 Q. Now, Mr. MacLellan, you testified on
16 Wednesday that there is a greater awareness in Canada
17 of the need to conserve than in the United States;
18 correct?

19 A. I was referring to this report when I
20 made that statement.

21 Q. Now you do a regular survey called
22 the Residential Tracking Survey. Could you please tell
23 me what the purposes of the residential tracking
24 surveys are and how you use them.

25 A. The purpose is to try to keep in

1 touch with the pulse of attitudes of people, to try and
2 find out what opinions and attitudes are changing
3 frequently or quickly, and also to find out the
4 awareness level of the various programs that we run.

5 We want to find out whether or not people
6 are aware of some of our demand management activities,
7 the directions we are going, and how they are accepting
8 those directions, and whether or not we should change
9 them, continue them, modify them,

10 Q. So you do a time series, you are
11 doing a time series, correct, in order to determine
12 whether attitudes change?

13 A. Yes.

14 Q. And haven't you in fact found that
15 attitudes are changing in Ontario and that people are
16 becoming more conservation minded and more
17 environmentally minded than they have -- are more
18 environmentally minded or conservation minded today
19 than they were in the past? And in fact the trend is
20 that conservation and environmental concerns are even
21 becoming more dominant as time passes?

22 A. That's the trend. As I recall, it is
23 not a massive movement, but that's certainly the trend
24 as we have been doing the tracking study for, oh, about
25 two-and-a-half years now.

1 Q. And to understand it, in aggregate
2 Ontarians are more conservation minded, and prove they
3 are day to day, than their compatriots in the United
4 States, the residential consumers in the United States;
5 correct?

6 A. That's what we understand.

7 Q. And isn't it also true that the rate
8 of growth in Ontario is greater than that in the United
9 States in terms of consumers, residential consumer
10 attitudes?

11 A. You mean the rate of change of those
12 attitudes?

13 Q. The rate of change. That
14 directionally Ontarians are becoming more conservation
15 minded at a greater rate than they are in the United
16 States?

17 A. I am actually not familiar enough
18 with the recent U.S. results to agree or disagree with
19 that.

20 Q. So all that you can agree with at
21 this time is they are more conservation minded in the
22 U.S. and that that trend in Canada or in Ontario
23 continues to grow?

24 A. Yes. I am just checking the date of
25 this classified study. It was done essentially in the

1 middle of our tracking studies, so the classified study
2 drops somewhere in the middle, so yes, I guess I can
3 generally agree with that.

4 I'm just checking the specific numbers in
5 the tracking study. The category called "Resource
6 Conservation" is not changing in what I would call a
7 statistically significant manner, but as you say the
8 trend is there.

9 Q. I am looking at another study, page
10 128 of tab 1. In fact this might be -- no. This is
11 the residential tracking survey and I am looking at
12 page 128, which is page 7, I believe, of the study, and
13 it says in the second paragraph, second sentence:

14 Overall the percentage of home owners
15 mentioning environmental factors
16 increased slightly from 26 per cent in
17 June of 1990 to 30 per cent in November
18 of 1990.

19 And do you have any more current
20 information than that, Mr. MacLellan?

21 A. No. This is the March '91 tracking
22 survey. We won't have any information more current
23 until we have the next phase which is probably next
24 month.

25 Q. I am looking at the chart on page

1 128. It says influences regarding energy efficiency.
2 And the second block of columns is resource
3 conservation. Am I correct in reading this that in
4 November of '89 there is a zero percent response with
5 respect to resource conservation and in June of 1990 a
6 17 per cent and then November of '90 an 18 per cent
7 response?

8 A. No. That means that in November '89
9 the question wasn't asked.

10 Q. So much for that math.

11 I would like to go back just to page 119
12 just to disaggregate some concepts that this study
13 uses. And on pages 119 and 120 are the executive
14 summary for the report, Ontario Hydro Classified
15 Segmentation study. Could you please just explain
16 briefly what the context of this study is. And then I
17 am going to ask you some questions about the different
18 categories that were identified.

19 A. I think I talked briefly about the
20 context of the study, the purpose of doing it, what we
21 were attempting to find out, and why we administered
22 this specific EPRI design test. It was an attempt to
23 find the differences between Canada and the U.S. for
24 comparison with their programs and also for targeting
25 our programs.

1 Q. And what this report does then is
2 classify six market segments, six types of consumers in
3 the marketplace which Ontario Hydro serves?

4 A. Yes.

5 Q. And the first that's listed on page
6 119 are resource conservers. I take it that this is
7 the largest segment found in Ontario from the study and
8 approximately 30 per cent of households in Ontario are
9 classified as resource conservers; is that correct?

10 A. Right.

11 Q. And 17 per cent in the U.S. are
12 resource conservers; correct?

13 A. Yes.

14 Q. And the next category, four
15 paragraphs down, it says 25 per cent of the Ontario
16 market consists of pleasure seekers. And I take it
17 that in the United States, 22 per cent of the market
18 are pleasure seekers; is that correct?

19 A. According to the study, yes.

20 Q. And moving down to the bottom of the
21 page, the third category here is lifestyle simplifiers.
22 And it identifies 18 per cent of the people in the
23 Ontario market as lifestyle simplifiers and 17 per cent
24 of the U.S. market.

25 A. Yes, no real difference there.

1 Q. So there is no real difference
2 between lifestyle simplifiers and resource
3 conservers -- excuse me, pleasure seekers; correct?

4 A. Right.

5 Q. But there is a significant difference
6 in the resource conserver category: 30 per cent
7 Ontario; 17 per cent U.S.?

8 A. Right.

9 Q. Now turning the page just to finish
10 this classification scheme, it says 17 per cent of
11 Ontario Hydro customers are identified as value seekers
12 versus 13 per cent in the U.S.; correct?

13 A. Yes. But that's not really
14 statistically significant.

15 Q. And what about the next one, hassle
16 avoiders? There are two relatively small market
17 segments, and it says that 6 per cent of Ontarians are
18 hassle avoiders but 13 per cent in the U.S. Now is
19 that statistically significant: that twice as many
20 people in the U.S. are hassle avoiders?

21 A. Yes.

22 Q. And finally there are the appearance
23 conscious people. It says 5 per cent of Ontarians are
24 appearance conscious, whereas 18 per cent in the U.S.
25 are appearance conscious.

1 A. Well, our predominant resource
2 conservers have to come from somewhere I guess.
3 (laughter)

4 Q. So instead of being resource
5 conservers, Americans are hassle avoiders and
6 appearance conscious people; is that your
7 understanding?

8 A. That's what this study says, yes.

9 Q. Now once again we all know, at least
10 most people who read newspapers or watch TV know about
11 surveys. Now is this just a survey that Ontario Hydro
12 has undertaken and found it an interesting conversation
13 piece? Or is it something that you have thought about
14 more deeply and adopted within your planning processes?

15 A. Saying we have adopted it within our
16 planning process is probably a little extreme. We are
17 trying to use it when we are designing specific
18 programs to appeal to the Ontario public. It affects,
19 more than anything it would affect the type of program
20 we develop, the way we offer incentives, not
21 necessarily the level, the message in our advertising.
22 That's the kind of thing that it affects. We haven't
23 used it to plan on as yet.

24 Q. To a large extent we are trying to
25 figure out how to use it. We are fairly new at this

1 psychographic-type surveying so we are learning how to
2 use it.

3 So from everything you have seen to date
4 and from the date you receive this to the present
5 reinforces your view that there are real market
6 distinctions out there, but you don't know quite how to
7 exploit them. Is that...?

8 A. We think we know how to exploit them
9 in terms of changing the creativeness in our
10 advertising to appeal specifically to those people.
11 One example might be last fall's compact fluorescent
12 program where there was an environmental side to it, to
13 the creative appeal. But apart from that, as I say, we
14 are learning how to use it.

15 Q. Now going back to the original
16 question about penetration rates, you told us that the
17 average penetration rate by the year 2000 for fuel
18 switching and energy efficiency improvement was 23 per
19 cent, Mr. MacLellan; and we have also heard from Mr.
20 Burke that the fuel switching number was soft, is a
21 guesstimate; that the 23 per cent number is something
22 that you have been working on for a couple of years;
23 correct?

24 A. As an average, yes.

25 Q. And that average is based on

1 primarily in terms of quantitative analysis on U.S.
2 experience; correct?

3 A. And changes that we expect to find in
4 Ontario as well.

5 Q. But the number in the United States
6 is 23 per cent for these induced energy efficiencies
7 and that's the number you have used in Ontario?

8 A. Yes.

9 MS. FRASER: A. Excuse me. Where is the
10 23 per cent in the U.S?

11 Q. I understood the evidence to be that
12 the 23 per cent was a number that included qualitative
13 analysis of the Ontario experience, your last two years
14 of number crunching, and as well the quantitative
15 experience in the United States in terms of
16 penetration.

17 A. That doesn't mean that the data that
18 we had at the time of doing this analysis indicated
19 that U.S. data suggested 23 per cent. In fact, the
20 data that we were using at the time when we were doing
21 I guess both iterations of this comes from the data
22 with respect to the reports that are also filed in I
23 believe the part 3 of the PCRD with respect to review
24 and assessment of North American utility experience
25 with commercial programs and so on that Mr. Wilson

1 referred to earlier.

2 And those basically indicated that in the
3 U.S. upon maturation, penetration rates for broadly
4 targeted demand management programs are in the area of
5 8 to 12 per cent. Now narrowly targeted programs can
6 achieve penetration rates of 20 to to 60 per cent.

7 Now, as I explained before, what we are
8 dealing with here is an average penetration rate across
9 the whole range of potential induced demand management.

10 Q. What would be a comparable figure
11 from the United States? I started this part of the
12 cross-examination with the 23 per cent figure, Ms.
13 Fraser.

14 A. That's what I indicated, that for
15 mature programs, broadly targeted programs in the
16 United States, the range of 8 to 12 per cent was the
17 data that we had through consultants that we had hired
18 to look at the U.S., the best U.S. programs, and from
19 our involvement in Nordax, which is a North Eastern
20 U.S. data base organization, looking at this program.

21 Q. And for the narrowly focussed, the
22 number was?

23 A. 20 to 60 per cent.

24 Q. And an average number?

25 A. We didn't have an average number. It

1 is difficult to average those things. One of the
2 difficulties in translating data from place to place is
3 the same problem that we have in doing any comparisons
4 with respect to what is the potential: what are they
5 actually using; in terms of calculating penetration
6 rates, is it number of customers, is it amount of
7 potential and so on.

...

1 [4:55 p.m.] MR. BURKE: A. I think it is important
2 to realize that the penetration rates for the
3 efficiency improvement options are for each and every
4 one of the measures and then it's a weighted average of
5 the particular eligibilities that we have in Ontario.
6 So, that it is very difficult, in fact, to compare.

7 We have penetration rates that range from
8 3 per cent to nearly the 90 per cent depending on which
9 segment you are looking at. To find a typical result
10 for the U.S. would dependent very much on what their
11 segment mix was.

12 Q. I am trying to find a number that's
13 comparable to the 23 per cent figure that you have
14 given in this hearing as the average penetration rate
15 by the year 2000 for fuel switching and energy
16 efficiency improvement in the residential market.

17 MS. FRASER: A. If you can find it, can
18 you let us know, because we pay consultants lots of
19 money to help try and find that kind of a number.

20 Q. Well, you have given the number 23
21 per cent; correct?

22 A. That, I believe, is the average for
23 residential. It's different sector to sector.

24 Q. What you are saying is that it is
25 very difficult to come up with a meaningful average or

1 median number because of all of the problems associated
2 with broadly based programs versed well focused
3 programs.

4 A. Problems in looking at the potential,
5 how they are measuring penetration, whether they are
6 actually measuring participation rather than
7 penetration, things like that.

8 Q. So, the 23 per cent number then is a
9 number which will have little application in the micro
10 exercise of forecasting?

11 THE CHAIRMAN: Excuse me, I am a little
12 confused. I don't hear the witnesses saying that the
13 23 per cent has any relevance to the United States
14 studies. The 23 per cent is a purely Hydro average of
15 their programs.

16 MR. ROSENBERG: Well, Mr. Chairman, I
17 will ask that to clarify it.

18 My understanding of the answers I
19 received when I started this, in quoting page 7-16 of
20 the Demand/Supply Plan, where it says: "The expected
21 customer uptake is based Ontario Hydro's experience
22 with demand management, as well as an examination of
23 comparable programs undertaken by American utilities,"
24 meant to me that in coming up with the 23 per cent,
25 Hydro looked at American experience.

1 Q. Now, is that correct, Ms. Fraser?

2 MS. FRASER: A. That right. We looked
3 at the numbers 8 to 12 for broadly based programs, the
4 numbers 20 to 60.

5 Now, the range, when you look at programs
6 technology by technology, end use by end use, and the
7 programs in U.S. have evolved over time, they have gone
8 from very specific programs only say for 34 watt
9 tubes - I am talking about commercial now - to broad
10 based comprehensive programs, and it is difficult to do
11 any translation straight right long. But we are
12 looking at, generally, with a figure basically of 8 to
13 12 per cent for broadly targeted programs, and I think
14 if you look overall, that all three sectors were going
15 after somewhere around a third of potential, 23 I think
16 was the number given for residential, that we are
17 essentially going after two and three times what the
18 best programs were getting at that point in the United
19 States, which I think is an indication of the
20 aggressiveness with which we have jumped into this
21 process.

22 Q. So, you don't know what a comparable
23 average figure would be from the United States?

24 A. No, we haven't been able to get that
25 number.

1 The world is changing just as fast down
2 there.

3 Q. In terms of the market segments that
4 we have identified, the six market segments, do you
5 feel that this study, June of 1990, has been reflected
6 in this 23 per cent number, Mr. MacLellan, or do I take
7 it that you haven't yet incorporated this market
8 segmentation into your analysis of penetration rates?

9 MR. MacLELLAN: A. I guess to start to
10 answer that, the difference in attitudes between
11 Ontario and the U.S. is reflected as well in natural
12 conservation, and the 23 per cent is only induced EEI.
13 So, to start with, Ontarians do a lot more on their
14 own, and to some extent that cuts done on what is
15 available to induce.

16 But this study would not have been - and
17 this study was done after the DSP obviously - and it
18 would have been considered when we were talking about
19 penetration rates a few months ago. I remember getting
20 a visit. So, it would have been done at that point.

21 Q. So, given that the 23 per cent didn't
22 incorporate the Environics study at page 119 and 120 at
23 Tab 1 of Exhibit 298, directionally then we could
24 expect that the 23 per cent figure might, in fact, even
25 be higher in Ontario.

1 A. Well, maybe a bit. But it's not like
2 the results of this came as a huge surprise to us. And
3 the fact that Ontarians were conscious of conservation
4 was something we considered before that. So, it's not
5 like it would radically change it.

6 Q. I am going to finish on this point
7 today. I am almost there, if you could just bear with
8 me for a couple more questions.

9 I take it, my examination of the prefilled
10 material in the DSP has told me that when you
11 calculated this 23 per cent number, the only
12 quantitative experience you examined was the American
13 experience, because your track record in Ontario was so
14 young at that point?

15 A. I believe that's true, yes.

16 Q. What I would like to know is, well,
17 you have agreed that directionally, if you incorporated
18 this market segmentation study in your findings
19 directionally it might increase the number slightly.
20 That is something I would like you to give me an
21 explanation of. Why only slightly? If the only
22 numbers you had were American numbers, where only 17
23 per cent of Americans were resource conservers, whereas
24 30 per cent of Ontarians were resource conservers, why
25 wouldn't the number be remarkably higher?

1 A. As we stated, the U.S. experience is
2 not the only experience we looked at when we set the
3 penetration rates. And we looked at penetration rates
4 program by program, which is why you couldn't get an
5 answer to your question of what is the average in the
6 U.S.

7 So, that was one of the elements, how did
8 the U.S. utilities perform when they were ongoing
9 programs. But we also, as I said, talked to
10 manufacturers, retailers, utilities, even some
11 consumers through market research, and that is where we
12 settled on the penetration rates. It was not
13 exclusively U.S. utility.

14 Q. I take it from all of your answers
15 you don't put a lot of faith in the 23 per cent number
16 and would prefer to look at every program individually.

17 A. It's an average and it goes from, as
18 is stated the materials, from 3 per cent to 60 odd per
19 cent. So, taken as an aggregate, it's hard to take
20 that 23 percentage and say, yes, it works for an R2000
21 program and no it doesn't work for an appliance
22 program. It is hard to relate it.

23 MR. ROSENBERG: Thank you. Those are my
24 questions for today.

25 THE CHAIRMAN: We will adjourn now for

1 the day until ten o'clock tomorrow morning. And you
2 will continue until 3:15 and then we have the Voice of
3 Women and then we will stop and start with AMPCO on
4 Wednesday morning, is that right?

5 MS. MORRISON: SESCO on Wednesday morning
6 and then AMPCO.

7 THE CHAIRMAN: SESCO on Wednesday morning
8 and then AMPCO.

9 All right, ten o'clock tomorrow morning.

10 THE REGISTRAR: This hearing will adjourn
11 until ten o'clock tomorrow morning.

12 ---Whereupon the hearing was adjourned at 5:03 p.m. to
13 be resumed on Tuesday, September 17th, 1991,
14 at 10:00 a.m.



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